

**ECONOMIC
PRINCIPLES, PROBLEMS, AND POLICIES**

THE CENTURY STUDIES IN ECONOMICS

WILLIAM H. KIEKHOFFER, *Editor*

THE DEVELOPMENT OF ECONOMICS

by William A. Scott

THE DEVELOPMENT OF MODERN WORLD TRADE

by Isaac Lippincott

ECONOMIC PRINCIPLES, PROBLEMS, AND POLICIES

by William H. Kiekhofer

PUBLIC FINANCE, Third Edition

by Harley L. Lutz

May, 1936

The Century Studies in Economics
WILLIAM H. KIEKHOFER, EDITOR

ECONOMIC PRINCIPLES, PROBLEMS, AND POLICIES

BY
WILLIAM H. KIEKHOFER, PH.D., LL.D.
PROFESSOR OF ECONOMICS
IN THE
UNIVERSITY OF WISCONSIN



D. APPLETON-CENTURY COMPANY
INCORPORATED
NEW YORK LONDON

COPYRIGHT, 1936, BY
D. APPLETON-CENTURY COMPANY, INC.

*All rights reserved. This book, or parts
thereof, must not be reproduced in any
form without permission of the publisher.*

337

PRINTED IN THE UNITED STATES OF AMERICA

TO MY STUDENTS

IN THE GENERAL ECONOMICS COURSE
AT THE UNIVERSITY OF WISCONSIN
DURING THE YEARS 1916-1936

whose alert interest has been a constant stimulus to me

and

TO MY ASSOCIATES

IN THE TEACHING OF THE COURSE

whose contributions have been indispensable to its development

THIS BOOK

which owes so much to both

IS DEDICATED

PREFACE

Economics is often a bewildering subject to both student and layman. If its presentation consists largely of a body of abstract principles, the subject is apt to seem remote from the world of economic reality, which is already more or less familiar to the reader. If the treatment consists chiefly of a description of economic life, indispensable as such description is, it may easily become confusing because of the wealth of available material and the absence of unifying principles. Since economics seeks to *explain the activities of man in getting a living*, it must furnish not only a realistic description of man's economic life but also an analysis of the principles that guide and control it.

The title of the present work indicates the scope of its exposition. The book deals with the structural organization of modern economic society, with the ways in which it functions, with the principles or laws of its functioning, with the maladjustments in its operations resulting in problems calling for both private and public remedial action, and with the policies pursued in attempts to make it function better. It is an exposition of economic principles, problems, and policies. The treatment of principles and problems is interwoven throughout the book. Theory and practice, principles and problems, are not kept in separate compartments. To attempt to keep them so would be, it seems to me, to run the risk of developing a lifeless theory and of losing the significance of practical activities. Economic theory is developed as an interpretation of economic practice and as a guide to better practice.

Since this book is the outgrowth of twenty years' experience in introducing students to the subject of economics and in guiding them through the general survey course, it is reasonable to expect that close attention has been given both to the logical organization of the thought and to what seems to me the pedagogically best sequence of ideas. If the treatment of any subject is logically clear,

more than half the problem of understanding or teaching it is solved. The present general treatise on economics begins with the economics of production. Most persons who think about the scope of economics at all are apt to think that it has something to do with the ways in which men acquire income to satisfy their wants. This seems a logical place to begin the study of the subject. Goods must be produced before wants can be satisfied. From the successful sale of the commodities one has produced, or the services which one can render, comes the purchasing power that can be exchanged for a great variety of want-satisfying goods.

Because, in these days of specialization, production is characteristically carried on for the market, Part II is concerned with the agencies and institutions which have been created to facilitate the exchange of goods.

The fundamental economic problem with reference to goods produced for exchange in the market is the problem of determining their price, since prices are the chief guide to the investment of productive energy and the principal control mechanism in a system of free enterprise. Accordingly, value and price are the theme of Part III. In the treatment of markets—those for commodities, labor, loanable funds, and land—I have developed a parallelism of treatment which is intended to make the understanding of price theory and problems easier than it would be without such an approach. After considering the subjects of value and price, wages, interest, rent, and profits—what is known as the theory of value and distribution—I turn to a treatment of price changes and the cyclical movement of business. In the discussion of value and distribution no question is raised concerning the effects of possible changes in the purchasing power of money. The value of money, however, does not remain constant, and rapid changes in its purchasing power are an invariable characteristic of business cycles. So it seems best to treat price changes and business cycles immediately after concluding treatment of the theory of value and distribution.

The ultimate objective of the production, exchange, and valuation of goods is consumption, the gratification of human wants; this is the subject of Part IV.

At various points in this round of processes involving the produc-

tion and consumption of wealth, government steps in to collect taxes and other forms of public revenue, to be used in expenditures for the common good. Accordingly, Part V deals with the economics of government—the income and expenditures of governmental units.

The concluding section of the book, Part VI, is concerned with the policies of government toward our economic life and with the agencies created for translating them into political action. Consideration of economic policies and politics includes an appraisal of the achievements of the existing capitalistic system and an examination of the possible substitutes for it. It constitutes one of the climaxes in the story of economics. -

One of the distinctive difficulties, with which every teacher is familiar, in the presentation of economics is the tendency of some students, particularly if they have had a little practical economic experience, to substitute a smattering of information for real knowledge. It is a case where "a little learning is a dangerous thing". Experience is most helpful in appraising the significance of theory, but it is no substitute for theoretical analysis and the hard work which the assimilation of theory requires. A further difficulty encountered in the presentation of economics, which is not generally experienced by the teachers of the natural sciences, is that both the student and the layman are apt to bring preconceptions, sometimes strong prejudices, to the consideration of economic principles and issues. Few discussions of the principle of comparative costs in relation to tariff policy, for example, have been free from a considerable bias in favor of protectionism.

In writing this general treatise on economics I have tried to be clear in the statement of economic principles and rigorously fair in stating opposing views on controversial economic issues. Partisanship on unsettled questions of the day has no place in a book of this sort; objectivity should stamp it at every turn. Special pleading has its place in addresses on special occasions or in volumes frankly so designated. What the reader of this volume has a right to expect is a meticulously objective presentation of the principles of economics, the problems of economic society, and the policies pursued in their solution.

One of the chief motives that has prompted me in writing this gen-

eral treatise has been the hope that I might be able to discuss the subject so clearly that students and other readers would be able very largely to master the exposition of doctrine and problems by themselves. I want to help liberate the precious time of the classroom from so much straight expository teaching, thus freeing teachers to lecture on special topics not covered in the text and to spend the entire time of a discussion period in considering problems and cases which test and develop the students' ability to think. If the book contributes substantially to the achievement of this end I shall feel rewarded.

I have purposely kept the presentation of the subject within the compass of a single manageable volume. It is intended, however, as the basic reading for a year's survey course in general economics, together with such supplementary reading as every teacher will want to include. Students in the general survey course should acquire some familiarity with the literature of economics. Most teachers have their favorite selections from standard works of reference or from contemporary sources which they want to assign, and which they know how to provide through the regular facilities of libraries or in other ways.

Because of the limitations of space and the desire to make this volume serve the needs not only of students but of general readers, whose interest in economics has been quickened by the stirring events of recent years, I have excluded all class-room material such as problems, exercises, cases, and bibliographies, except as the latter are included in the foot-notes. It is my present expectation to publish such study aids in a small supplementary volume, which should be ready in the spring of 1937.¹

For early stimulation and helpful advice in the preparation of this volume I am particularly indebted to my colleagues, formerly my teachers, Professors John R. Commons, Edward A. Ross, and William A. Scott, whose constant friendship and interest have been of inestimable help through the many years of our association. The day-by-day contacts with my associates in the Department of Economics have resulted in many fruitful suggestions which I cannot properly credit, much as I should like to do so.

I am indebted to my colleagues Professors Henry R. Trumbower

¹ *Problems in Economics*, published by D. Appleton-Century Company, appeared in May, 1937.

and Margaret Pryor Glicksman for reading certain chapters in the fields of their special interest and giving me the benefit of their critical comments and helpful suggestions. I also received most helpful criticisms from Dr. Joseph E. Shafer, now of Bowling Green University (Ohio), on the chapter dealing with value and price; from Dr. H. L. McCracken, Louisiana State University, and E. Stanley Rector of the Unemployment Compensation Department of the Wisconsin Industrial Commission on the chapter dealing with rent; and from James S. Earley and Thomas H. Smith, at present associated with me in the teaching of economics in the University of Wisconsin, on the chapter dealing with business cycles.

The development and expression of many of the ideas in the book benefited greatly from the give-and-take of the discussion at the weekly luncheons of the instructors coöperating in teaching Economics 1 at the University of Wisconsin. At these gatherings of a personnel that has shifted with the lapse of the years, the work of the following week was regularly discussed for substance of doctrine and methods of presentation. These meetings will always live in my memory among the most stimulating and delightful experiences of my academic life.

Dr. Margaret Pryor Glicksman, Mr. T. Levron Howard, now Director of Research of the Tennessee Valley Authority, Mr. Russell H. Baugh of the Oklahoma Agricultural and Mechanical College, and Dr. Daniel S. Gerig of the National Recovery Administration aided me most efficiently as research assistants on various chapters of the book.

Professor Ira B. Cross of the University of California, esteemed co-worker in the teaching of general economics, upon whose friendship I imposed by inflicting the entire manuscript upon him (with his consent), gave me many penetrating criticisms and constructive suggestions, which have helped to clarify the treatment at many points. I gratefully acknowledge my deep obligation to him.

Nathan and Ethel Silverstein saved me much of the laborious work of reading both galley and page proofs; for their meticulous care thank them.

No writer could be blessed with more efficient and devoted assistants than I have had in Alma L. Bridgman and Nathan L. Silver-

stein, both of whom are members of the instructional staff in general economics. Miss Bridgman prepared the entire manuscript for the printer, drew up the analytical table of contents, and gave me numerous suggestions that improved both substance and form of expression.

Mr. Silverstein has devoted part of his time during the past four years to serving as my research assistant. His painstaking investigation of elusive facts, his critical commentaries on both ideas and the language that expresses them, and his unfailing support at every turn have led to many improvements in the book and have directly contributed to its publication at this time.

To my wife, Gladys Owen Kiekhofer, I owe many an improvement in diction and style. While she did not "have the final word", hers was often the more felicitous phrasing.

Great as is my obligation to others, both named and unnamed, I assume full responsibility for all "sins of omission and commission" with the hope that they may be forgiven.

WILLIAM H. KIEKHOFFER.

University of Wisconsin.

CONTENTS

PART I. PRODUCTION

CHAPTER I. HUMAN WANTS AND ECONOMIC SCARCITY 3

FOUNDATIONS OF ECONOMICS, 3.

NATURE OF HUMAN WANTS, 4.

Instinctive basis of human wants, 5. Habitual expression of human wants, 6. Rationalization of human wants, 6.

SOME DESIRES PROMPTING ECONOMIC ACTIVITY, 7.

Desire for physical necessities and comforts, 8. Desire for self-expression and development, 8. Desire for power, 9. Desire for recognition and approval by others, 10. Desire for the welfare of others, 10.

SCARCITY, A LIMITING FACTOR IN WANT GRATIFICATION, 12.

CHAPTER II. THE STRUGGLE FOR ECONOMIC OPPORTUNITY AND POWER 14

MAN'S STRUGGLE FOR A LIVING, 14.

Universality of struggle due to scarcity, 14. Distinction between the economic struggle and the struggle for existence, 14. Must economic conflict continue? 15. Forms of the struggle for economic opportunity, 16.

THE STRUGGLE FOR A JOB, 16.

Large number of job-holders, 16. Fear of losing the job, 17. Economic power over the job, 18.

THE STRUGGLE FOR NATURAL RESOURCES, 20.

Appropriation of land, 20. Appropriation of forests, 21. Appropriation of minerals, 22. Appropriation of water-power, 23. Property rights in natural resources, a source of economic power, 23.

THE STRUGGLE FOR CAPITAL, 24.

Capital-poverty, 24. Accumulation of capital, 25. Economic power of capital, 26.

CHAPTER III. FACTORS AND FUNCTIONS IN PRODUCTION 28

THE NATURE OF PRODUCTION, 28.

Definition of production, 28. —Free and economic goods, 29. Forms of production, 31. Relation of productive to acquisitive activities, 35.

FACTORS IN PRODUCTION, 36.	
Labor, 38. Capital, 44. —Relation of productive to acquisitive capital, 46. —Roundabout character of capitalistic production, 47. The entrepreneur, 49.	
FUNCTIONS IN PRODUCTION, 51.	
CHAPTER IV. THE INDUSTRIAL ORGANIZATION OF PRODUCTION	54
RELATIVITY OF ECONOMIC INSTITUTIONS, 54.	
EVOLUTION OF INDUSTRIALISM, 55.	
The self-sufficing household economy, 55. The commercial or handicraft economy, 58. —The guild system, 58. —The domestic system, 60. The industrial economy, 61.	
NATURE OF MODERN INDUSTRIALISM, 65.	
Machine industry, 66. The factory system, 69. Capitalistic control and private property, 70. Free enterprise and free competition, 73. Specialization, exchange, and interdependence, 75. Speculative production, 79. Credit economy, 79. Prevalence of group action, 81.	
CHAPTER V. THE BUSINESS ORGANIZATION OF PRODUCTION	82
THE NATURE OF BUSINESS, 82.	
THE SOLE PROPRIETORSHIP, 83.	
Advantages, 83. Disadvantages, 84.	
THE PARTNERSHIP, 84.	
Advantages, 85. Disadvantages, 85.	
THE CORPORATION, 87.	
Nature, 87. Importance of corporations, 87. How corporations are established, 89. The government of a corporation, 91. Advantages of the corporate form of business organization, 92. Disadvantages of the corporate form of business organization, 94. Corporation capital and the securities issued to represent it, 96. —Bonds, 97. —Preferred stock, 98. —Common stock, 101. What the financial statement of a corporation shows, 101. What the operating statement of a corporation shows, 106. Corporation capital and capitalization, 108. —The historical cost standard, 110. —The cost of reproduction standard, 111. —The earning capacity standard, 111. Overcapitalization and under-capitalization, 112. —Stock-watering versus stock dividends, 116.	
CHAPTER VI. CAPITALISTIC COMBINATIONS	120
THE COMBINATION MOVEMENT, 120.	
ECONOMIC CONDITIONS FAVORABLE TO COMBINATIONS, 121.	
Existence of natural monopolies, 122. Large-scale standardized businesses capable of centralized control, 124. Public and private favoritism, 125.	

FORMS OF COMBINATION, 127.	
Pools, 127. Trusts, 130. Holding companies, 131. Mergers, 133.	
Informal agreements, 134.	
PURPOSES OF COMBINATIONS, 135.	
Advantages of large-scale management, 135. Elimination of competition, 136. Regulation of output and maintenance of prices, 136. Anticipated profits, 137.	
CHAPTER VII. LABOR ORGANIZATIONS	139
HISTORICAL BASIS OF UNIONISM, 139.	
STRUCTURAL ORGANIZATION OF UNIONS, 140.	
Incorporation, 141. Federation, 142.	
THE AMERICAN FEDERATION OF LABOR, 143.	
Origin, 143. Membership, 143. Government, 145. Purpose, 145.	
Strength and weakness, 147.	
INDUSTRIAL WORKERS OF THE WORLD, 148.	
PRESENT-DAY IMPORTANCE OF UNIONISM, 150.	
CHAPTER VIII. LABOR-UNION POLICIES	153
THE POLICY OF COLLECTIVE BARGAINING, 153.	
Weakness of individual bargaining, 154. Strength of collective bargaining, 155. Effects of collective bargaining, 156. The legal right of collective bargaining, 157.	
THE POLICY OF THE CLOSED SHOP, 158.	
Nature of open and closed shop, 159. Grounds of justification of the closed shop policy, 159. Objections to the closed shop policy, 160.	
THE POLICY OF RESTRICTING OUTPUT, 161.	
Labor's justification of output restriction, 162.	
POLICY OF REGULATING HOURS, 163.	
The benefits of a shorter working day, 164. The economic possibility of a shorter working day, 164.	
POLICY OF CONTROLLING THE INTRODUCTION OF MACHINERY, 168.	
CHAPTER IX. INDUSTRIAL CONFLICT	171
SOURCES OF INDUSTRIAL CONFLICT, 171.	
Dissatisfaction with the job, 171. Dissatisfaction with the rewards of the job, 173. Dissatisfaction with the efficiency of labor and management, 174.	
LABOR'S MEANS OF WAGING INDUSTRIAL CONFLICT, 175.	
The strike, 175. Picketing, 178. The boycott, 179. Sabotage, 181.	
EMPLOYERS' MEANS OF WAGING INDUSTRIAL CONFLICT, 182.	
The lockout, 182. Strike-breaking by non-union labor, 183. The black-list, 184. The injunction, 184. Yellow-dog contracts, 186.	

THE ATTITUDE OF THE PUBLIC TOWARD INDUSTRIAL CONFLICT, 187.	
THE RESTRAINT OF INDUSTRIAL CONFLICT BY THE COURTS, 188.	
Legal restraint of the strike, 190. Legal restraint of picketing, 193. Legal restraint of the boycott, 194. Legal status of the lockout, 199. Legal status of strike-breaking, 199. Legal restraint of the black-list, 199.	
CHAPTER X. INDUSTRIAL PEACE AND INDUSTRIAL GOVERNMENT	201
AGENCIES FOR SETTLING INDUSTRIAL DISPUTES, 201.	
Conciliation, 201. Mediation, 202. Voluntary arbitration, 204. Compulsory investigation, 206. Compulsory arbitration, 210.	
PLANS FOR IMPROVING INDUSTRIAL GOVERNMENT AND PREVENTING INDUSTRIAL CONFLICT, 215.	
Welfare work, 218. Scientific management and personnel administration, 219. Employee representation, 220. Company unions, 224. Profit-sharing and copartnership, 225. Trade agreements, 229.	
CHAPTER XI. POPULATION AND PRODUCTION	230
QUALITATIVE POPULATION PROBLEMS, 230.	
QUANTITATIVE POPULATION PROBLEMS, 232.	
The Malthusian theory of population, 233. Appraisal of the Malthusian doctrine, 234. The optimum population, 236. Population pressure relieved by emigration, 237.	
FACTORS CREATING THE IMMIGRATION PROBLEM IN THE UNITED STATES, 238.	
Volume of immigration, 238. The changing type of immigrant, 240. The urban preference and segregation of the immigrant, 241. Increase in illiteracy, 242. Failure of the "melting pot," 242.	
THE RISKS IN UNCONTROLLED IMMIGRATION, 243.	
CONTROL OF IMMIGRATION BY EXCLUSION, 244.	
CONTROL OF IMMIGRATION BY SELECTION, 246.	
CONTROL OF IMMIGRATION BY RESTRICTION, 247.	
CONSEQUENCES OF IMMIGRATION CONTROL, 250.	

PART II. EXCHANGE

CHAPTER XII. THE MONEY SYSTEM OF EXCHANGE	253
DEVELOPMENT OF THE MONEY SYSTEM OF EXCHANGE FROM BARTER, 253.	
THE SELECTION AND SURVIVAL OF METALLIC MONEY, 254.	

GOVERNMENT COINAGE AND PRINTING OF MONEY, 257.

The coinage of money, 258. The engraving and printing of money, 260.

STANDARD MONEY, 261.

The functions of standard money, 265.

FIDUCIARY MONEY, 267.

Forms of fiduciary money, 267. —Coins, 268. —Paper money certificates, 269. —Government notes, 270. —Bank-notes, 271. The value of fiduciary money, 272. —Specific security supporting each kind of fiduciary money, 272. Uses and abuses of fiduciary money, 275.

THE PROPOSAL OF A FIAT MONEY SYSTEM, 280.

THE PROMISE AND PERFORMANCE OF BIMETALLISM, 281.

Nature of bimetallism, 282. Alleged advantages of bimetallism, 283. Assumptions of bimetallism, 284. The bimetallic experience of the United States, 286.

CHAPTER XIII. THE CREDIT SYSTEM OF EXCHANGE . . 294

THE IMPORTANCE OF CREDIT IN MODERN EXCHANGE, 294.

FORMS OF CREDIT AND TYPICAL CREDIT INSTRUMENTS, 295.

Investment credit, 295. Commercial credit, 296. Commercial credit instruments, 297.

CONVERSION OF PERSONAL CREDIT INTO BANK CREDIT, 303.

Bases of personal credit, 303. The exchange of personal credit for bank credit, 304.

ORIGIN AND STRUCTURAL DIFFERENTIATION OF BANKS, 305.

Origin of banks, 305. Kinds of American banks classified as to source of legal power, 307. Structural types of American banks, 308.

FUNCTIONS OF BANKS IN THE CREDIT SYSTEM, 310.

Receiving deposits, 311. Making loans and discounts, 312. Issuing notes, 318. Solvency and liquidity of banks, 320.

THE FEDERAL RESERVE BANKING SYSTEM, 322.

Structural organization of the federal reserve banking system, 323. —The Board of Governors, 323. —The Federal Advisory Council, 324. —The member banks, 327. Functions of member banks, 328. Functions of the federal reserve banks, 329. —Custodianship of the central reserves of the system, 329. —Rediscounting of commercial paper, 330. —Engaging in open market operations, 333. —The issuance of notes, 336. —Conducting clearings, 340. —Acting as fiscal agent and depository for the government, 343. Duties of the Federal Advisory Council, 343. Powers of the Board of Governors, 344. Service of the federal reserve system, 345.

FEDERAL DEPOSIT INSURANCE CORPORATION, 346.

CHAPTER XIV. INTERNATIONAL TRADE AND EXCHANGE 349

SIGNIFICANCE OF FOREIGN TRADE TO THE UNITED STATES, 349.

BASIS AND ADVANTAGES OF INTERNATIONAL TRADE, 352.

Law of comparative costs, 353.

THE INTERNATIONAL BALANCE OF PAYMENTS, 357.

THE MECHANISM OF FOREIGN EXCHANGE, 363.

Buying and selling of foreign exchange, 363. Price or rate of foreign exchange on a gold basis, 367. —Par of exchange, 367.

Price of foreign exchange on an irredeemable paper basis, 372.

CHAPTER XV. TRANSPORTATION 375

IMPORTANCE OF TRANSPORTATION IN THE MODERN EXCHANGE SYSTEM, 375.

LEADING TRANSPORTATION AGENCIES FACILITATING THE EXCHANGE OF GOODS, 375.

Railway transportation, 376. Water transportation, 377. Highway transportation, 379. Pipe-line transportation, 379. Air transportation, 380.

DISTINCTIVE ECONOMIC CHARACTERISTICS OF THE RAILWAY BUSINESS, 381.

RAILWAY CHARGES AND THEIR INFLUENCE UPON THE ECONOMIC LIFE OF THE COUNTRY, 383.

SPECIFIC RATES BASED ON THE PRINCIPLE OF CHARGING WHAT THE TRAFFIC WILL BEAR, 385.

SPECIFIC RATES BASED ON THE COST OF SERVICE, 387.

THE GENERAL LEVEL OF RATES, 389.

PLIGHT OF THE RAILWAYS IN THE UNITED STATES, 391.

CHAPTER XVI. RISKS AND INSURANCE 395

RISKS IN MODERN ECONOMIC SOCIETY, 395.

The incidence of risks, 396.

INSURANCE AS A MEANS OF SHIFTING RISKS, 397.

RISKS OF PERSON, 398.

Insurance against the risk of death, 398. Insurance against accidents, 403. Insurance against sickness, 405. Insurance for old age, 406.

RISKS OF PROPERTY, 409.

RISKS OF BUSINESS, 410.

RISK OF UNEMPLOYMENT, 412.

Causes of unemployment, 413. Means of reducing the risk of unemployment, 416. —Labor exchanges, 416. Government employment on public works, 417. —Stabilization of industry, 419. —Unemployment insurance, 420.

CHAPTER XVII. ORGANIZED MARKETS	425
ORGANIZED MARKETS, 425.	
NATURE AND IMPORTANCE OF MARKETS, 427.	
Market-place versus market area, 427. Importance of markets and marketing, 428.	
ECONOMIC FUNCTIONS IN THE MARKETING OF COMMODITIES, 429.	
COMMODITY MARKETS, 433.	
Trading for immediate versus future delivery, 434. —Selling short, 435. —Hedging, 437.	
LABOR MARKETS, 439.	
REAL ESTATE MARKETS, 440.	
MONEY AND CAPITAL MARKETS, 442.	
SECURITY MARKETS, 442.	
Control over the issuance of securities, 446. Control over trading in securities, 448.	

PART III. VALUE AND PRICE

CHAPTER XVIII. VALUE AND PRICE	453
NATURE OF ECONOMIC VALUE, 454.	
ECONOMIC VALUE EXPRESSED IN EXCHANGE VALUE AND PRICE, 455.	
FUNCTIONING OF THE MARKET IN THE DETERMINATION OF COMMODITY PRICES, 456.	
QUALITATIVE ANALYSIS OF DEMAND AS A PRICE-DETERMINING FACTOR IN A GIVEN MARKET AT A GIVEN TIME, 461.	
Marginal utility as a specific determinant of demand, 462. —The law of diminishing utility in relation to marginal utility, 463. —Marginal utility and subjective price, 464.	
QUALITATIVE ANALYSIS OF SUPPLY AS A PRICE-DETERMINING FACTOR IN A GIVEN MARKET AT A GIVEN TIME, 470.	
Cost of production as a specific determinant of supply, 472.	
QUANTITATIVE ANALYSIS OF MARKET PRICE IN A GIVEN MARKET AT A GIVEN TIME, 476.	
The case of one buyer and one seller, 477. The case of several buyers and one seller, "seller's monopoly," 477. The case of one buyer and several sellers, "buyer's monopoly," 481. The case of several buyers and several sellers, 481.	
NORMAL PRICE, 486.	
Market price contrasted with normal price, 486. Normal price as controlled by supply, 487. —Supply in industries of decreasing costs, 490. —Supply in industries of increasing costs, 490. —Supply in industries of constant costs, 491. —Supply as conditioned by marginal costs, 491. Normal price as controlled by demand, 493.	

CHAPTER XIX. WAGES 496

WAGES AND THE PROBLEM OF DISTRIBUTION, 496.

THE NATURE OF WAGES, 498.

FUNCTIONING OF THE LABOR MARKET IN THE DETERMINATION OF WAGES, 500.

EXPLANATION OF THE DEMAND FOR LABOR, 503.

Productivity as a specific determinant of the demand for labor, 504. —Value productivity of labor, 505. —The law of diminishing productivity as applied to labor, 506. —The marginal productivity of labor in relation to wages, 507.

EXPLANATION OF THE SUPPLY OF LABOR, 512.

Productivity as a specific determinant of the supply of labor, 513. The standard of living as a specific determinant of the supply of labor, 513. Disutility of labor and the desire for leisure as a specific determinant of the supply of labor, 514.

THE WAGE BARGAIN, 515.

Limits of the wage bargain, 515. Wages, a price-effecting equilibrium between demand and supply, 516.

LONG-TIME FACTORS AFFECTING WAGES, 519.

Proportioning the factors in production, 519. Division of labor supply into non-competing groups, 520. The nature of the occupation, 521.

CHAPTER XX. INTEREST 524

NATURE OF INTEREST, 524.

FORMER DISREPUTE OF INTEREST-TAKING, 526.

FUNCTIONING OF THE LOANABLE FUNDS MARKET IN THE DETERMINATION OF INTEREST RATES, 527.

EXPLANATION OF THE DEMAND FOR LOANABLE FUNDS, 530.

Meaning of the demand for loanable funds, 530. Demand for private consumption loans, 531. Demand for public consumption loans, 532. Demand for production loans, 532.

EXPLANATION OF THE SUPPLY OF LOANABLE FUNDS, 535.

Meaning of the supply of loanable funds, 535. Loanable funds supplied by individual savings, 536. —Individual savings limited by time-preference, 537. —Individual savings at the margin of time-preference or waiting, 540. Loanable funds supplied by corporate savings, 541. Loanable funds supplied through the advances of government, 542. Loanable funds supplied through the extension of bank credit, 543.

THE INTEREST RATE CONTRACT, 546.

Limits of the loan interest rate, 546. Loan interest, a price effecting equilibrium between demand and supply, 547.

LOAN INTEREST, IMPUTED INTEREST, AND CAPITALIZED INCOME, 550.

CHAPTER XXI. RENT	552
THE NATURE OF RENT, 552.	
FUNCTIONING OF THE LAND MARKET IN THE ESTABLISHMENT OF CONTRACT RENTS, 553.	
EXPLANATION OF THE DEMAND FOR AGRICULTURAL LAND, 554.	
Meaning and sources of the demand for land, 554. Causes of the differential productivity of land, 555. Productivity as a specific determinant of the demand for land, 556. —Productivity meas- ured from the extensive margin of use, 558. —Productivity meas- ured from the intensive margin of use, 560.	
EXPLANATION OF THE SUPPLY OF AGRICULTURAL LAND, 565.	
THE CONTRACT RENT BARGAIN IN AGRICULTURAL LAND, 566.	
THE RENT OF URBAN LAND, 567. .	
CAPITALIZATION OF ECONOMIC RENT AND THE VALUE OF LAND, 570.	
EFFECTS OF TAXATION UPON RENTS AND LAND VALUES, 572.	
Effects of current property taxes, 573. Plan of the unearned in- crement tax, 573. The single-tax proposal, 574.	
CHAPTER XXII. PROFITS	579
PROFITS, THE FUNCTIONAL REWARD OF ENTREPRENEURS, 579.	
THE NATURE AND KINDS OF PROFITS, 580.	
Differentiation of wages of management from profits, 582. Segre- gation of imputed interest and rent from profits, 583. Identifi- cation of pure profits, 584. Gross profits versus pure profits, 585.	
RELATION OF PROFITS TO OTHER DISTRIBUTIVE SHARES, 586.	
THE SOURCES OF PROFITS, 587.	
Differential gains, 588. Chance gains, 588. Gains from changes in the price level, 589. Gains from imperfect competition and monopoly, 589. The permanence of pure profits, 590.	
THE DISPOSITION OF PROFITS, 591.	
Necessary profits, 591. Surplus profits, 592.	
CHAPTER XXIII. GENERAL PRICE CHANGES	593
MEANING OF CHANGING PRICE LEVELS, 593.	
MEASUREMENT OF PRICE CHANGES BY INDEX NUMBERS, 594.	
Index numbers of the arithmetic average type, 595. Index num- bers of the aggregative type, 597.	
EVILS IN RAPID CHANGES IN THE PRICE LEVEL, 600.	
Slowness of fixed income in responding to price changes, 601. Shrinkage of the value of savings, 601. Disturbance of long- time contracts, 603. Inertia of rates fixed by government, 603.	
THE EQUATION OF EXCHANGE AS AN APPROACH TO THE PROBLEM OF PRICE CHANGES, 604.	

CAUSES OF CHANGES IN THE GENERAL LEVEL OF PRICES, 606.

Quantity theory of money, 606. Assumptions of the quantity theory, 607. Price changes affected by every element in the equation of exchange, 609.

CHAPTER XXIV. BUSINESS CYCLES 614

THE RECURRENCE OF BUSINESS CYCLES, 614.

THE COURSE OF A BUSINESS CYCLE, 617.

The period of prosperity, 618. The period of the crisis and recession, 620. The period of depression, 621. The period of recovery, 622.

THEORIES OF THE BUSINESS CYCLE, 624.

Attempts to explain business cycles in terms of weather and climate, 625. Business cycles and changes in business psychology, 625. Overproduction and underconsumption in relation to the business cycle, 626. Oversaving and overinvestment in relation to the business cycle, 628. The expansion and contraction of credit in relation to the business cycle, 629. The prospects of profit-making and the business cycle, 631.

THE CONTROL OF BUSINESS CYCLES, 633.

Control of the currency, 634. The control of credit, 636. Control of production, 638.

PART IV. CONSUMPTION AND SAVING

CHAPTER XXV. THE INTERDEPENDENCE OF CONSUMPTION AND PRODUCTION 643

NATURE OF CONSUMPTION, 643.

Consumption affected by diminishing utility, 644. Consumption affected by variety and harmony of the goods consumed, 645.

THE MEASUREMENT OF CONSUMPTION, 647.

CONSUMERS' GUIDANCE OF PRODUCTION, 652.

PRODUCERS' INFLUENCE UPON CONSUMPTION, 653.

THE BALANCE OF CONSUMPTION AND PRODUCTION, 656.

CHAPTER XXVI. FACTORS AFFECTING CONSUMERS' CHOICE, 658

NATURE OF CONSUMERS' CHOICE, 658.

TECHNOLOGY OF PRODUCTION AS A LIMITATION UPON CONSUMERS' CHOICE, 659.

SIZE OF INCOME, 660.

STATUS OF CONSUMER AS TO KIND AND DEGREE OF WANT-SATISFACTION, 663.

Nature of luxury, 664. Alleged justification of luxury, 666. Real justifications of luxury, 667.

SOCIAL STIMULATION OF WANTS, 668.

FORMAL SOCIAL CONTROL, 670.

CHAPTER XXVII. SPENDING AND SAVING 673

FINANCING CONSUMERS' EXPENDITURES, 673.

PROTECTING CONSUMERS IN THEIR SPENDING, 675.

THE NEED FOR SAVING, 679.

FORMS OF SAVING, 681.

Saving as conservation, 681. Saving as accumulation, 682.

SOURCES OF SAVINGS, 683.

INVESTMENT OF SAVINGS, 684.

Savings deposits in banks, 685. Investments in corporation securities and real estate mortgages, 685. Building and loan association payments, 686. Insurance as an investment, 687.

PART V. THE INCOME AND EXPENDITURES OF GOVERNMENT

CHAPTER XXVIII. SOURCES OF PUBLIC REVENUE 691

REVENUE FROM GOVERNMENT OWNERSHIP, 692.

Revenue from the public domain, 692. Revenue from the monopolies of government and other public industries, 697.

REVENUE FROM FEES, 700.

REVENUE FROM SPECIAL ASSESSMENTS, 702.

REVENUE FROM TAXES, 704.

CHAPTER XXIX. FORMS OF TAXATION 705

CRITERIA OF GOOD TAXES, 706.

BEARING THE BURDEN OF TAXATION, 709.

According to benefits received, 709. According to ability to pay, 710.

PROPERTY TAXES, 713.

Justification, 715. Defects and remedies, 715.

BUSINESS TAXES, 718.

CONSUMPTION TAXES, 722.

Federal internal taxes upon commodities, 723. Federal customs duties, 725. State taxation of consumption goods, 726.

SALES TAXES, 727.

INCOME TAXES, 728.

Nature and development of income taxation in the United States, 728. Important provisions of the present (1934 as revised in 1935) federal income tax law, 731. —Persons affected, 731. —Reporting of gross income, 732. —Allowable de-

ductions, 732. —Calculation of net income, 732. —Computation of normal tax, 733. —Computation of surtax, 733. State income taxes, 735. Is the income tax a good tax? 736.

ESTATE AND INHERITANCE TAXES, 737.

Difference between estate and inheritance taxes, 737. How the federal government taxes estates, 738. How the States tax inheritances, 739. Are estate and inheritance taxes good taxes? 740.

SOURCES OF PUBLIC REVENUE IN THE UNITED STATES, 743.

THE SHIFTING AND INCIDENCE OF TAXES, 743.

CHAPTER XXX. PUBLIC LOANS AND DEBTS 750

THE MAGNITUDE OF PUBLIC DEBTS, 750.

JUSTIFICATION OF PUBLIC DEBTS, 753.

Public debt due to investment in public works, 753. Public debt due to war, 754.

ECONOMIC EFFECTS OF PUBLIC DEBTS, 756.

Increase in costs, 756. Inflation of prices, 757. The shifting or reapportionment of war burdens, 758.

MEANS OF PAYING PUBLIC DEBTS, 759.

The payment of domestic debts, 760. The payment of foreign debts, 761.

THE PAYMENT OR REPUDIATION OF PUBLIC DEBTS, 762.

The payment of public debts, 762. The repudiation of public debts, 763. The cancellation of public debts, 764. —The payment of German reparations, 771.

PART VI. ECONOMIC POLICIES AND POLITICS

CHAPTER XXXI. THE ECONOMIC POLICIES OF GOVERNMENT 781

CHANGING ECONOMIC POLICIES OF GOVERNMENT, 781.

IMPORTANT MERCANTILISTIC DOCTRINES, 782.

Emphasis upon nationalism, 782. Importance of the precious metals, 782. Encouragement of foreign trade, 783. Doctrine of a favorable balance of trade, 783. Encouragement of manufactures, 784. Encouragement of the shipping industry, 784.

REACTION AGAINST MERCANTILISM, 784.

LEADING PRINCIPLES IN THE *Laissez Faire* POLICY, 785.

Natural rights, 785. Individual liberty, 785. Self-interest, 786. Free competition, 786.

STRONG HOLD OF THE *Laissez Faire* POLICY IN THE UNITED STATES, 787.

THE REACTION AGAINST *Laissez Faire*, 788.

THE POLICY OF GOVERNMENT CONTROL, 790.

CHAPTER XXXII. THE CONTROL OF FOREIGN TRADE:
PROTECTIONISM AND FREE TRADE 792

USE OF TARIFFS TO CONTROL WORLD TRADE, 792.

THE ARGUMENT FOR PROTECTIONISM, 794.

Promotion of nationalism, 794. Protection of infant industries, 795. Desirability of industrial independence in the event of war, 797. Development of the home market, 798. Protection of labor against lower wage scales, 799. Protection of domestic prices against "dumping," 801.

THE ARGUMENT FOR FREE TRADE, 803.

THE TARIFF POLICY OF THE UNITED STATES, 805.

The United States Tariff Commission, 811. Future American tariff policy, 813.

CHAPTER XXXIII. THE CONTROL OF INDUSTRIAL COMBINATIONS 816

LEGAL DOCTRINES RELATING TO COMBINATIONS, 817.

THE SHERMAN ANTI-TRUST ACT, 819.

Provisions, 819. Knight Case, 820. Northern Securities Company Case, 821. Standard Oil Company Case, 822. United States Steel Corporation Case, 824.

THE CLAYTON ANTI-TRUST ACT, 825.

Price discriminations, 826. Tying contracts, 826. Intercompany stockholding and interlocking directorates, 827. The Appalachian Coals, Inc., Case, 827.

THE FEDERAL TRADE COMMISSION ACT, 830.

COMBINATIONS UNDER THE NATIONAL INDUSTRIAL RECOVERY ACT, 833.

PUBLIC POLICY TOWARD COMBINATIONS, 834.

Policy of suppression, 834. Policy of prevention, 835. Policy of regulation, 835.

APPENDIX: TEXT OF THE SHERMAN ANTI-TRUST ACT, 836.

CHAPTER XXXIV. THE CONTROL OF PUBLIC UTILITIES 839

THE CASE FOR REGULATION OF THE PUBLIC UTILITIES, 839.

The monopolistic character of the public utilities, 839. Governmental aid to the public utilities, 840.

PURPOSE IN REGULATION OF THE PUBLIC UTILITIES, 842.

RAILWAY REGULATION: SPECIFIC COMPLAINTS AGAINST THE RAILWAYS, 843.

High rates, 843. Discrimination between places, 844. Discrimination between individuals, 844. Discrimination between commodities, 846. The pooling of earnings or traffic, 846.

RAILWAY REGULATION: CONTROLLING LEGISLATION, 847.

RAILWAY REGULATION: POWERS OF THE INTERSTATE COMMERCE COMMISSION, 853.

As to scope, 855. As to rates, 856. As to discriminations, 856. As to combinations, 856. As to accounts and finance, 857. As to service, 857.

RAILWAY REGULATION: POWERS OF STATE PUBLIC UTILITY COMMISSIONS, 858.

REGULATION OF PUBLIC UTILITIES OTHER THAN THE RAILWAYS, 860.

THE ALTERNATIVE OF GOVERNMENT OWNERSHIP AND OPERATION OF THE PUBLIC UTILITIES, 865.

CHAPTER XXXV. THE CONTROL OF INDUSTRY FOR THE PROTECTION OF LABOR 870

PHILOSOPHY OF LABOR LEGISLATION, 870.

LEGAL DIFFICULTIES IN PROCURING PROTECTIVE LEGISLATION FOR LABOR, 871.

LEGISLATION CONCERNING HOURS OF WORK, 873.

Fatigue as a basis for such legislation, 873. —Overtime, 874. —Speed and monotony of work, 874. —Domination of the machine over man's natural rhythm, 875. —The noise of machinery, 876. —Results of fatigue, 876. Need of leisure, as a basis for legislation controlling hours, 877. Spreading work, as a basis for the restriction of hours, 877. Scope and extent of legislation concerning hours of work, 878.

SAFETY AND HEALTH LEGISLATION, 881.

LEGISLATION CONCERNING EMPLOYERS' LIABILITY, 883.

Employers' liability under the common law, 884. Common-law defenses of the employer, 884.

WORKMEN'S COMPENSATION LEGISLATION, 886.

Types of compensation systems, 886. Scope of compensation laws, 887. Scale of compensation benefits, 888. Insurance of compensation risks, 890. Administration of compensation law, 890.

CHILD LABOR LEGISLATION, 891.

Need of regulating child labor, 891. Federal child labor laws, 892. Need of legislation by the States, 893.

MINIMUM WAGE LEGISLATION, 894.

Extent of minimum wage legislation, 894. Theory underlying a legal minimum wage, 895. Objections to a legal minimum wage, 897. Results of minimum wage legislation, 897.

CHAPTER XXXVI. CAPITALISM AND PLANS FOR ECONOMIC RECONSTRUCTION 899

FOUNDATIONS OF CAPITALISM, 899.

The institution of private property, 899. —Nature of property, 899. —Origin of private property, 900. —The social utility of private

CONTENTS

xxvii

property, 901. The institution of inheritance, 903. The rights of free enterprise and free contract, 904.	
THE CONTROL OF THE CAPITALISTIC SYSTEM, 905.	
Competition, 905. Public authority, 906.	
THE ACHIEVEMENTS OF CAPITALISM, 907.	
CRITICISMS OF THE PRESENT CAPITALISTIC SYSTEM, 908.	
Wastefulness of present system, 909. Inadequacy of competition as a regulator, resulting in the development of monopolies, 911. Inequitable distribution of wealth, 911. Insecurity in status of workers, 912. Overemphasis upon property rights, 912.	
SOCIALISM AS A PLAN FOR ECONOMIC RECONSTRUCTION, 913.	
Nature of socialism, 913. The socialistic state, 913. The socialistic movement and socialistic theory, 914. Ways of establishing the socialistic order, 918.	
THE STRENGTH OF SOCIALISM, 919.	
PRACTICAL DIFFICULTIES INVOLVED IN SOCIALISM, 920.	
Ill-founded objections to socialism, 920. Difficulty of maintaining and increasing wealth production, 922. Difficulty of avoiding the evils of bureaucracy, 923. Difficulty of agreeing upon an equitable standard of distribution, 924.	
THE PLAN OF COMMUNISM, 925.	
THE PLAN OF FASCISM, 929.	
THE PLAN OF SYNDICALISM, 932.	
THE PROPOSAL OF ANARCHISM, 933.	
INDEX	935

PART I
PRODUCTION

CHAPTER I

HUMAN WANTS AND ECONOMIC SCARCITY

FOUNDATIONS OF ECONOMICS

Most men neither have, nor can they easily get, all the income they desire for the gratification of their wants. Upon this basic fact of scarcity in relation to human wants the whole subject of economics has been built. Human wants are the great driving forces of an economic world in which there is not enough of everything for all. If our wants were fewer and less urgent, or if the things that satisfy them (what economists call goods) were more abundant, many of our present economic activities would disappear. But one of the most striking facts about civilized man is the number and variety of his wants; and at the same time one of the most stubborn facts about the world in which we live is the scarcity of want-satisfying goods. In consequence men must "struggle" to get a living. To carry on this struggle for a living more effectively, men have developed a great variety of means and human relations, which now constitute the structural organization of our economic society. To furnish an understanding of the functioning of this economic society—that is, of the processes by which men get a living—is the chief purpose of economics as a social study. To show that economic processes are not chaotic, but rather in accordance with laws which can serve as guides for action, is the hope of economics as a science. To improve the mechanisms by which men make a living is the task of the technical arts. To bring into constantly more efficient coördination the many interdependent parts of an ever-changing economic system is the duty of economic statesmanship both in and out of political office.

Since the beginning and end of economic study is man, there is a large humanistic element in economics. In its method, however, of systematically searching for the causes of economic phenomena and

4 HUMAN WANTS AND ECONOMIC SCARCITY

of reducing its conclusions to laws, economics is scientific. Not inaptly, therefore, economics has been called a social science, the term suggesting its kinship with both the humanities and the sciences. Whether one emphasizes the humanistic or the scientific element in it, *economics is that branch of human learning which treats of the means and activities by which men get a living*. Problems of income and of expenditure, whether of individuals or of groups, are the special subject of economics. Human wants and scarcity of goods are its foundations.

NATURE OF HUMAN WANTS

Although economics deals with goods largely external to man, it cannot be too strongly emphasized that the beginning and end of economic study is man. It is with man's efforts to obtain income and the use of income in the gratification of his wants that economics is largely concerned. Accordingly, an understanding of human wants, no less than of how man comes into possession of want-satisfying goods, is essential to a complete understanding of economic life. In common with the other social studies, economics has some of its roots in biology and psychology. It is to these sciences that we must turn for knowledge of the nature of the human factor in social life. Economics assumes human beings in action. Biology and psychology explain their actions, physical and mental. The economist, in his explanation of that part of social life with which he is particularly concerned, is helped or limited at almost every turn by the adequacy or inadequacy of the biologist's and psychologist's interpretation of human behavior.

Unfortunately, not all explanations of economic life have been based upon adequate psychological foundations. It was once rather common, for instance, to think of man, whose economic activities economists sought to explain, as a being largely motivated by self-interest and by the desire to gratify his wants with the least possible effort. Of course this so-called "economic man" was never anything more than an abstraction. Powerful as is self-interest in economic behavior, and eager as men are to get the largest reward in return for the least necessary effort, human nature as revealed in economic

life cannot be reduced to quite such simple terms. The fact is, man is a member of a social group, and consequently his economic activities are influenced by many motives other than self-interest and parsimony. There is no economic motive *par excellence*. The economic behavior of men is as complex as any other form of human behavior. In any given economic situation, men may be driven by instinctive impulses, may act in accordance with thoroughly established habits, or may be guided by rational calculation of consequences. Any attempt, however, to explain economic behavior solely in terms of a single mental element is bound to prove disappointing.¹

Instinctive basis of human wants. In explaining the nature of human wants, psychologists tell us that all men are endowed with certain tendencies to act. These "native reaction" or "original behavior" tendencies they call instincts or behavior impulses. Structurally, instincts represent a certain "set" or organization of the nervous system; functionally, they represent the response of hereditary structure to stimulus. In speaking of the importance of instincts in human behavior, Woodworth says:

It would be a great mistake to suppose that instinct was important only in animal or child psychology, because the human adult governed his conduct entirely by reason and calculation of consequences. Man does not outgrow instinct, any more than he outgrows emotion. He does not outgrow the native reaction-tendencies. These primitive motives remain in force, modified and combined in various ways, but not eliminated nor even relegated to an unimportant place. Even in his most intelligent actions, the adult is animated by motives that are either plain instincts or else derivatives of the instincts. . . . Life is a great masquerade of the instincts, and it is not only entertaining to unmask them, but illuminating as well.²

¹ It seems unwise and unnecessary in this connection to attempt any excursion into the psychological controversy associated with the terms "behaviorism" and "mentalism". Behaviorists, like Dr. J. B. Watson, seek to explain all of man's behavior in terms of "response to stimulus"; "mentalists", like Professor William McDougall, insist that there is a mind or self which expresses itself in his experience and behavior. The economist accepts human wants or desires as driving forces in our economic life, whatever their nature and origin. Whether they be mechanical responses to stimulus and nothing more or states of an experiencing mind is for the psychologist to determine.

² Robert S. Woodworth, *Psychology* (New York: Henry Holt and Company, 1921), p. 137.

6 HUMAN WANTS AND ECONOMIC SCARCITY

The importance of an understanding of the instincts for the explanation of economic behavior lies in the fact that instincts are the common native equipment of all men of all races of all times. Some of man's wants, such as those associated with food and sex, are largely instinctive. The expression of all human desires, however, is constantly modified by habit and reasoned calculation of consequences.

Habitual expression of human wants. Instincts are not inflexible forces. They are impulses at most. Although remaining fairly constant in the species, man's instinctive impulses are plastic and accordingly modifiable in the experience of the individual. They furnish the "raw material" out of which the individual's habits are built.³ While the impulsive energy of some instinct doubtless furnishes the native "drive" for most human activities, instincts are modified by the physical and social environment in which they find expression. The environment acts selectively. Some instinctive tendencies are repressed; others are modified and developed into habits. Hereditary tendencies to act, persistent in the species, are called instincts; the modifications of these natural tendencies arising through experience are known as habits. Instincts represent man's "original nature"; habits, his "second nature". "It would be a mistake, however", says Woodworth, "to suppose that the individual outgrew and left behind his native reactions and acquired an entirely new outfit. . . . His acquired reactions are his native reactions modified by use."⁴ Our wants tend to find habitual modes of expression. How powerful habit is in expressing human wants, especially as men get older, is evidenced by countless facts, such as individual preferences for certain foods, amusements, and modes of living. Habit in the individual, moreover, is the chief means of perpetuating the customs of a people, which greatly affect all economic endeavor and want gratification.

Rationalization of human wants. With experience men tend to rationalize their wants—to calculate the consequences of satisfying their wants in this way or that. In almost every mature person

³ "Instincts may be trusted to form desirable habits only under a strong social pressure whereby the wants of one are accommodated to the wants of all."

—E. L. Thorndike, *The Original Nature of Man* (New York, 1923), p. 311.

⁴ *Psychology*, p. 297.

the many native behavioristic impulses have been organized in such a way, and control over movements in accordance with ideas and ideals has been so definitely acquired, that we are justified in asserting of such a person that he has a will and character of his own.⁵ It is this complex will or character that expresses itself in economic behavior. As men grow in experience, rational wants play an increasingly important rôle in motivating economic activities. Sterilized milk for babies and pure food for all are demanded because people have come to understand the germ theory of disease. Safety devices and labor-saving appliances are installed in home and factory because people are unwilling to take unnecessary risks or to perform useless labor. Much money and energy are spent in educational work of all sorts because people demand that they and their children shall have opportunities for the fullest development and enjoyment of their powers. These are types of rational wants. It is such wants that prompt much of the economic effort of the world. In the rationalization and habit-expression of man's wants social influences of many kinds play a most important part.

SOME DESIRES PROMPTING ECONOMIC ACTIVITY

Human wants or desires prompt all economic activity. As far as the effect upon our economic life is concerned, it matters not whether these desires be behavioristic impulses arising as responses to stimuli, or states of an experiencing mind. The important fact is that they stimulate economic activity. Instinctive, habitual, and rational elements may all be present in any given desire. Whatever the nature and origin of our desires, it is to gratify them that men the world over and time out of mind have sought to produce wealth and to acquire income. Desires are impulses directed toward the attainment of that which will gratify us. But so numerous and recurring

⁵ "The term will", says James R. Angell, "is simply a convenient appellation for the whole range of mental life viewed from the standpoint of its activity and control over movement. The *whole mind active*, this is the will."—*Psychology* (New York, 1904), p. 437. "Fixation of modes of willing constitutes character", according to the same writer. *Ibid.*, p. 434.

"The will is character in action", according to McDougall. *Outlines of Psychology* (New York, 1923), p. 442. By an individual's character he understands the whole organized system of impulsive tendencies. *Ibid.*, p. 417.

8 HUMAN WANTS AND ECONOMIC SCARCITY

are our desires, and so limited is our command over economic resources, that only a comparatively few people have incomes large enough to satisfy them all.

Desire for physical necessities and comforts. Chief among the desires prompting economic activity is the desire for physical necessities and comforts. This is true whether we think of the historical experience of the race or of the present experience of most people. Everybody knows that in most places men have been moved to economic activity by the pangs of hunger and the need of keeping warm. Hunger and cold directly account for enormous expenditures of human energy, for without food and protection against the elements men must perish. India and China, with their teeming millions, illustrate how much of the energy of people must be concentrated upon the single task of keeping alive when there is real pressure of population upon the means of subsistence. Periodically in less populous countries, when food supplies run low and there is a sharp rise in the cost of living, we are reminded of how potent after all is hunger in affecting the economic behavior of men. People must first of all be well fed if their conduct is to be rational and normal. Numerous and lengthy "bread lines" are symptomatic of deep-seated trouble in our economic system. Clothing and shelter in most climates are equally basic necessities. In prosperous countries like the United States, it is true, relatively few persons are ever in imminent danger of either starving or freezing to death. But, here and elsewhere, as far as economic activity is concerned, man, unlike the lower animals, is rarely content with the mere necessities of life. On the contrary, he strives to acquire the comforts and luxuries which will enable him to lift his level of well-being above that of mere brute existence and to make life abundantly worth while. He wants food not only to keep alive, but for the pleasure of eating. He desires clothing not merely for protection, but to make an attractive appearance. He wants a house not solely for shelter, but because its modern conveniences and sometimes artistic furnishings help to gratify his love of the beautiful and to bring him a measure of prestige among his fellows.

Desire for self-expression and development. One of the strongest desires motivating economic behavior is the desire for self-

development. Wealth and income are desired not merely to procure physical necessities, but to provide opportunities for such self-development as will increase man's real freedom. Self-expression is fundamental to human happiness. It is a mistake to suppose that happiness can come through the mere passive enjoyment of things which one possesses. Happiness can come only through the active exercise of one's normal powers. Every person desires a chance to develop his capacities. Because men are curious, they demand opportunities to learn; our vast system of education has largely been created in order to make possible the highest self-development of the largest number of people. Because men are constructive, they demand opportunities to exercise their creative powers, which they may do in countless different ways, such as expert craftsmanship, inventions, and art. Most men realize their ideas and ideals in constructive activities of some sort; what particular form they will take is for most people largely a matter of chance. To ensure the fullest self-development requires income and the opportunities which income commands. Accordingly, the desire for self-development prompts economic activity. Some men, indeed, find economic activities, particularly in their acquisitive aspects, so engrossing that they devote themselves almost exclusively to making money.

Desire for power. Still another desire prompting endless economic effort is the desire for power. Wealth is a form of power. Many men continue their money-making efforts long after they have all the money they need for the ordinary purposes of life; some do so because they become fascinated by the game and do not know how to stop; others because they desire the power which great wealth affords. There is something about the possession of great wealth which appeals to the self-assertiveness of men. It affords them a means of domination.

The same motive, the desire for power, prompts much business expansion. As Dewing puts it: "The most powerful motive that leads a man to expand a business is the illusion of valuing himself in terms of his setting. The bigger the business, the bigger the man. . . . The race-old instinct of conquest becomes translated in our twentieth century economic world into the prosaic terms of corporate growth. Business expansion is the spirit of a modern

10 HUMAN WANTS AND ECONOMIC SCARCITY

Tamerlane seeking new markets to conquer. It is a pawn for human ambition.”⁶ To become a captain of industry or railway king or financial magnate, to appear as the recognized leader and spokesman of thousands of men, to get the thrill of directing the policies of huge organizations whether of capital or of labor—these are the heights of ambition of many men and call forth prodigious economic effort.

Desire for recognition and approval by others. Deeply implanted in human nature is the desire to gain the recognition of others and to win their approval. A limited few may be content with the satisfaction that comes through meeting their own standards; exceptional individuals may appeal to the verdict of history rather than to the judgment of their contemporaries; but most men covet the approval of their fellows. Some desire most of all the discriminating approval of a few select friends and associates; others yearn for the applause of the multitude. This desire for recognition and distinction, like the other desires already mentioned, prompts a vast amount of economic activity and drives some men at top speed. Some seek recognition in the piling-up of great fortunes; others, in lavish spending. Some strive for distinction in building up great economic enterprises; others, in the establishment of foundations dedicated to the common welfare. Income and wealth are desired not merely to provide necessities and luxuries; not wholly for the opportunities for self-development which they afford; not only for the power which they may confer; but also for the recognition and distinction which they may bring.

Desire for the welfare of others. Beyond all these desires, which are essentially self-centered, is the desire to help provide for the welfare and happiness of others. Not infrequently this desire is stronger and more compelling than any one or all of the rest. This is particularly apt to be true in the intimacy of the family group. The desires for a mate and for children, the impulses to protect them and to provide for their welfare, have resulted in the institutions of marriage and the family. It is altogether probable

⁶ A. S. Dewing, *Financial Policy of Corporations* (New York: The Ronald Press Company, 1920), IV, pp. 4, 5.

that the sex and the parental impulses, together with the institutions based upon them, account for more economic activity on the part of human beings than any others. Think, for instance, of the efforts parents put forth and the lifelong sacrifices they often make in order that their children may have opportunities which were denied them. Back of many a demand for shorter hours or steady work or higher wages is the solicitude of devoted parents.

But the altruistic motive, so often perfectly expressed within the family, is not confined in its objectives to the family group. Fortunately for human society, many persons become public-spirited and find their highest satisfaction in genuine expressions of good-will to all men. Many philanthropic foundations and educational endowments, much welfare work and social service, a great many humanitarian reforms protecting workers, and measures taken for the protection of our children and children's children are directly inspired by the desire to provide for the greatest welfare and happiness of others.

The foregoing illustrations of desires prompting economic activity will convey a wrong meaning if they leave the impression that any given form of economic behavior can easily be explained by reference to a single human trait working in isolation from all others. Human nature is not a mere mosaic of separate traits; it is a highly integrated organism. It is impossible in any given economic behavior situation to assert that any one behavior tendency is working to the exclusion of the rest. All that can be done is to distinguish the dominating tendency. Nor is it possible to say just how much of man's economic behavior is due to the inborn, and how much to the acquired. John Dewey says: "After ignoring impulses for a long time in behalf of sensations, modern psychology now tends to start out with an inventory and description of instinctive activities. This is an undoubted improvement. But when it tries to explain complicated events in personal and social life by direct reference to these native powers, the explanation becomes hazy and forced."⁷ It is the whole man—instinctive, habitual, rational, emotional—in constant inter-

⁷ *Human Nature and Conduct* (New York: Henry Holt and Company, 1922), pp. 90-91.

12 HUMAN WANTS AND ECONOMIC SCARCITY

action with his changing environment that constitutes the human factor in economic life, and that must be understood if we would explain, predict, and influence man's economic behavior.

Nor is it to be understood that the expression in economic and social life of the driving forces of the human desires just described is necessarily and always in the social interest. As a matter of fact, the desires for physical necessities and comforts, for self-expression and development, for power, and even for the recognition and approval of others may take exceedingly anti-social forms and result in the oppression and exploitation of others. The economic activity of individuals, however it is prompted, may be in the interest or at the expense of others. Economic behavior, like all other human conduct, needs to be socially controlled, so that the possible selfish pursuits of the one shall not be at the expense of the many. The strengthening and extension of the desire for the welfare of others and the disciplining of essentially egoistic impulses so that the expression of individual liberties will not encroach upon the freedom of others are constant processes of education and control.

SCARCITY, A LIMITING FACTOR IN WANT GRATIFICATION

Whatever the desires that prompt economic activity may be, the constant limitation upon the fullest gratification of human wants is the fact of scarcity. Scarcity means that at any given time and place there is a limited supply of a good to satisfy the desires for it which then and there exist. It is scarcity that has taught men to economize, to use goods to the best possible advantage in the gratification of their wants. This scarcity of want-satisfying goods has sometimes been due to the niggardliness of nature and again to the fact that too large a population was trying to live in a given area. Man's first economic problem has been to achieve such power over the materials and forces of nature as to ensure himself abundant and regular means of subsistence. Scarcity has created our economic organization and constantly stimulates countless economic activities. Men sometimes contrast an economy of abundance with an economy of scarcity. But goods in abundance still are not free. Goods the supply of which is limited in relation to the demand are scarce goods

in the economic sense. If by some miracle all want-satisfying goods were to become permanently superabundant, the need for both economic effort and economic use would disappear. Until that far-off day, however, human wants and scarcity will continue to create an economic order of some sort and to compel men to struggle for a living.

CHAPTER II

THE STRUGGLE FOR ECONOMIC OPPORTUNITY AND POWER

MAN'S STRUGGLE FOR A LIVING

Universality of struggle due to scarcity. After thousands of years of evolution, man's chief economic problem today is what it has always been: to acquire an income large enough to satisfy his wants. Indeed, the vast majority of people must still devote the major part of all their activities, from the time they arise in the morning to the time they fall asleep at night, to the process of getting a living. If the goods, including commodities and services of all kinds, essential to the satisfaction of our wants, were all as free as the air we breathe when out-of-doors, there would of course be no problem of getting a living. From time immemorial people have dreamed about such a world. Weary from their wanderings in the wilderness, they have looked forward to entering the "Promised Land" where milk and honey freely flowed. Many have conjured up Utopias where there would be more opportunity to live and less need for struggle. Disappointed with the results of their efforts here, many have turned attention to another world, thinking of it as a state in which there would be an abundance of want-satisfying goods and the opportunity to rest from weary toil. But, for the present, one of the most distinctive and significant things about the world in which we live is the fact that nature does not supply us gratuitously with all, or even many, of the commodities and services we desire. We live in a world of scarcity. It is scarcity that makes it necessary for men to struggle to get a living. It is scarcity that has driven men into the uttermost parts of the world in quest of new and larger economic opportunities.

Distinction between the economic struggle and the struggle for existence. In some places and at some times goods have been

so scarce that the struggle to get a living has become a struggle for bare subsistence. Starvation was a fearsome specter in the lives of many primitive peoples. But famine has been no less a grim reality during the distressful years following the World War. In modern as well as in primitive times, the struggle to obtain want-satisfying goods has often been a matter of life or death. But with progress in man's control over nature, the economic struggle has become less and less a struggle for mere existence and more and more a struggle for surplus and the power to control it. While the economic struggle is most assuredly a form of the struggle for existence, it is usually much more. The struggle for existence is a struggle for survival: the struggle of every living organism to preserve its life and not to permit its kind to perish from the earth. The economic struggle today in most of the industrialized nations of the world is a struggle for survival plus—a struggle for wealth and power often far in excess of what is needed for survival. In commenting on the relationship between the economic struggle and the struggle for existence, Professor E. A. Ross expresses himself in the following picturesque language:

The master error of the social Darwinists is to see in the economic struggle a twin to the struggle for existence that plays so fateful a part in the modification of species. The fact is, the scramble for money or place, though it be as desperate as the fight of clawed beasts, has ceased to be a clear case of life or death. Only on the bottom steps of the social staircase do men compete from hunger. Above them men work themselves into the madhouse or the grave, not for bread, but for jam on the bread.¹

Must economic conflict continue? The struggle to obtain scarce goods inevitably brings men into conflict. In the economic world this struggle to gain coveted goods in the attainment of which interests clash, when carried on in a lawful manner, is usually known as competition. Our economic society is still essentially competitive. Men compete with one another in buying and in selling material commodities and services of all kinds, in procuring productive opportunities and resources. As buyers men seek to pay as little as possible for the goods they want, but they find that others are in the market for the same goods, and accordingly they often have to pay more than they had originally planned. As sellers, men seek

¹ *Foundations of Sociology* (New York: The Macmillan Company, 1905), p. 340.

to dispose of their goods for the highest possible price, but they find that others are eager to do the same, and accordingly they often have to sell for less than they had originally hoped. Usually such competitive struggle proves stimulating and beneficial, as in ordinary retail trade, ensuring reasonable prices and fair quality and at the same time allowing the competitors to survive. But sometimes the competitive struggle proves ruthless, the more powerful seeking the destruction of their rivals in order that they may dominate the field unhampered. Some there are who regard the competitive struggle with its clash of interests as the mainspring of economic progress. Others denounce the competitive struggle as reminiscent of the jungle and as provocative of the brute in human nature. But however abhorrent the competitive struggle may appear to certain sensitive spirits, the fact is, as long as we live in a world in which the quantity of goods is limited in relation to the wants to be supplied, as long as men are willing to obtain more for themselves and their own than every one else is able to get, just so long is competition inevitable and so long will the economic struggle continue. To say this, however, is not to imply that human beings are wholly or even largely selfish. Since Charles Darwin proclaimed the doctrine of natural selection and Herbert Spencer wrote about the struggle for existence with the survival of the fittest, many have pointed out that the struggle for self finds a very real and important counterpart in the struggle for others.

Forms of the struggle for economic opportunity. The economic struggle is primarily a struggle for opportunity and secondarily a struggle for power. The struggle for economic opportunity in the modern world takes three characteristic forms: the struggle for a job; the struggle for the control of natural resources; and the struggle to command capital. Once in possession of a job or in control of some natural resources or in command of some capital, men seek to make their opportunities permanent by gaining economic power over them.

THE STRUGGLE FOR A JOB

Large number of job-holders. For the vast majority of people the struggle for economic opportunity is the struggle to have

and to hold a job, the struggle to find a constant market for their services. Most people can neither supply nor obtain on credit the necessary capital for commercial or industrial enterprises; not being the fortunate possessors of land, they have no choice other than finding the best available market for their services. The United States Census of 1930 shows that there were 48,832,589 gainfully employed persons ten years of age and over, of whom 38,053,795 were men and boys and 10,778,794 were women and girls. (Women working in their own homes, no matter how important and varied their occupations and arduous their work, the government does not yet recognize as being *gainfully* employed. Economists, however, have long since come to recognize them as being *productively* engaged.) Of this number, it is safe to assume that about thirty-five millions were holders of jobs. What is true of the United States is true of the industrialized world as a whole: the lives, standards of living, and happiness of the overwhelming majority of our fellow-men depend upon their success in finding and holding on to jobs.

Fear of losing the job. Since for most people the income essential to the gratification of their wants comes wholly from the continuously successful sale of their services, it is evident that the great economic fear of most people is the dread of losing their jobs. Sometimes it is the fear of being "fired"; again, of becoming maimed and unable to continue at the old job, for industry still exacts a terrific toll; sometimes it is the fear that sickness and lingering disease will lay one low and shut off all regular income; again it is the fear that the job itself will not last; or yet again, that the precarious income of the job will prove inadequate to meet some of the emergencies that home, wife, and children involve. Little wonder is it, as Whiting Williams observes after seven months of work in our coal mines and steel mills:

The most important factor of all in the life of the wage-worker is the job—the daily job. For him the day commences with the breathing of the prayer, "Give us this day our daily job!" ²

There are few more pitiable tragedies in the world than that of a man willing and anxious to work, but unable after ceaseless search

² *What's on the Worker's Mind* (New York: Charles Scribner's Sons, 1920), p. 282.

and wearisome standing in line to find the opportunity. It is this that sickens the heart and breaks the spirit; or, if the spirit survives, creates in some men the blind determination Samson-like to pull down the whole economic structure that allows such humiliation and injustice.

Economic power over the job. So vitally important to the worker is getting and holding a job, and so terrifying is the specter of long-continued unemployment, that the policy of organized labor has to a considerable extent been shaped by the desire to make the job last. Much that seems unintelligible or short-sighted becomes at least comprehensible, however wise or unwise it may appear, when the vital importance of the job to the workingman is understood.

Why do men organize in unions to treat with their employers? Because in union there is strength. The individual workingman has only his own perishable services to sell, is often ignorant of the best market for those services, and is quite as often unable to take advantage of it even if he were informed. Accordingly, in bargaining concerning wages, hours, and conditions of work, the advantage is largely on the side of the employer who controls the job. It is often a vital necessity to an individual workingman that he get a particular job here and now, while it is frequently a matter of very little concern to the man who has the job to give whether he procures the services of a particular workingman or not. But when men unite and bargain for working terms collectively through their own business agents skilled in such negotiations, there is less inequality in the bargaining situation. While the employer may remain indifferent as to getting or retaining the services of a single workingman, he cannot long be indifferent when it comes to keeping or losing the services of a hundred or a thousand skilled mechanics. Collective bargaining, then, is a means of converting the economic opportunity of jobs into economic power over them.

Why does organized labor insist upon the closed shop? Because the closed shop means greater power over the job. By the closed shop is ordinarily meant an establishment in which only labor-union members can remain as regular employees. Collective bargaining has reached its climax in insistence upon the closed shop. Organized

labor contends that the closed shop is essential to make collective bargaining really effective in procuring fair wages, in maintaining the American standard of living, in regulating hours, and in promoting security of the job. It is organized labor's favorite means of converting the economic opportunity of jobs into economic power over them.

Why do workingmen sometimes arbitrarily restrict output? Because output restriction helps make the job last. If men work too fast today, there may be no work for them to do tomorrow. In almost every industry there are days of idleness each year, and periodically there are prolonged depressions in which the industry operates on a part-time basis, if at all. Laboring men quite naturally conclude that "going slow" or "stringing out the job" will help make employment more steady and provide an answer to their prayer, "Give us this day our daily job." If steady employment could be assured, the chief motive for restriction of output would disappear. Whether we condone the policy as necessary under the uncertainties of industrial employment or condemn it as wasteful inefficiency doomed in the end to defeat itself, it is true that to the laboring man, who has to provide for himself and his family, the policy looks like a helpful means of asserting greater power over the economic opportunity upon which his very life and happiness depend.

To convert the economic opportunity of jobs into greater economic power over jobs is, as has been shown, a primary purpose in the substitution of unionism for individualism in industrial relations; of collective bargaining for individual bargaining; of the closed shop for the open shop; of output restriction for the unlimited production which often works men out of their jobs and their daily bread.

And yet today the overwhelming majority of the millions of gainfully employed persons in this country can never go to sleep at night with the comforting thought that they have steady jobs, regular income, and an assured status in our economic society. A man's property cannot be taken from him without due process of law, but a man's job may in most cases be taken from him upon very short notice. Property rights in jobs, though growing in importance, are not yet comparable to vested rights in land and capital goods. Even

the security of the job is not yet comparable either in law or in practice to the security of investments.

THE STRUGGLE FOR NATURAL RESOURCES

While as a matter of fact the struggle for economic opportunity today is for most people a struggle to get and to hold a job, until very recently, and to some extent still, most people in this country have dreamed about "striking it rich". Their hopes were to obtain control of rich natural resources in this land of plenty, to exploit or to develop them, and in so doing to win riches for themselves. Throughout the greater part of our history that was possible in this country, for America was preëminently the land of economic opportunity; nowhere were resources more abundant; nowhere was there greater freedom of action on the part of the individual and less interference on the part of the government. Men sought their El Dorado not only in digging into the earth, but in appropriating agricultural land, forests, and running water. The undeveloped riches of this land fired the imagination of venturesome spirits all over the world; today after more than 300 years of appropriation, exploitation, and development, America's natural resources still lead the world.

Appropriation of land. Here is a territory, excluding Alaska and our island possessions, amounting to nearly 3,000,000 square miles, or more accurately, to 1,903,290,880 acres. Of this vast area it has been estimated ³ that 1,441,436,160 acres, approximately three fourths, constituted the original public domain of the United States; the rest remained in the control of the States or passed directly to private settlers without ever coming into the possession of the United States government. From the beginning it was our policy to accelerate the development of the country, and consequently our public lands were either "sold for a song" or given away. Tens of millions of acres were sold for not more than \$1.25 per acre; and tens of millions more were given away under the Homestead Act of 1862. Enormous grants were made as subsidies for elementary and higher

³ *Report of the Public Lands Commission*, 58th Congress, Third Session (1904-1905), Senate Document No. 189, p. 139.

education, for railway and other internal improvements. In the 140 years that have passed since the establishment of our federal government, more than two thirds of our public domain of some 1,400,000,000 acres have passed from federal control. The lure of land brought settlers to our shores and drew them across the continent. Whatever part the desires for religious toleration and political liberty played in the early settlement of this country, and they were strong factors, these motives were soon powerfully reinforced by the desire for greater economic opportunity. This opportunity millions of people found in appropriation of the land.

Appropriation of forests. As the country developed, one of the greatest sources of wealth was found in the control of our forest lands. Says Charles R. Van Hise:

The United States originally had a forest which for extent and value was not equaled by that of any other civilized nation; indeed, it is doubtful if anywhere else in the world in an area of 3,000,000 square miles was contained a forest so valuable for all purposes.⁴

It has been estimated that 822 million acres of our land, somewhat less than one half, were once forest-covered. And what a magnificent heritage it was, not only in extent, but also in density and variety! There were the white pines of the North, the yellow pines of the South, the giant firs and redwoods of the West. There were widely scattered forests of almost every hardwood tree, including oak, walnut, maple, basswood, elm, ash, hickory, and many more. These forests promised untold millions of wealth for what seemed countless generations to come. And as a matter of fact many fortunes, large and small, were made by the appropriation of these virgin forests. Today, after decades of cutting and slashing and much ruthless exploitation resulting in such colossal waste that less than one half of the standing wood appeared in the manufactured articles; after devastating fires that wrought a loss, it is estimated, equal to the value of the timber used—and more's the pity, largely an unnecessary loss; after short-sighted taxation policies and belated measures of reforestation; today, in accounting for our forest inheritance we are confronted with the fact that at least two thirds have been

⁴ *The Conservation of Natural Resources in the United States* (New York: The Macmillan Company, 1910), p. 208.

used, squandered, or destroyed. It is evident that many people have found their economic opportunities in the appropriation of forest lands, using them today with little or no thought for the needs of tomorrow.

Appropriation of minerals. One of the most stirring chapters in American economic history deals with the quest for and appropriation of our mineral resources. Nature was most bountiful in her gift of minerals to the land that became the United States, both our mineral resources and our annual mineral products largely exceeding those of any other nation.⁵ Indeed our known coal deposits are still said almost to equal those of all other nations of the world put together. Our supplies of iron ore are still among the richest in the world. The significance of this is appreciated when we recall how much of economic civilization is today based upon coal and iron, and how the nations that control these will inevitably dominate the world as long as our present industrial age continues. In addition nature stored billions of barrels of petroleum in our rocks, the appropriation of which since 1859 has made a few fabulously rich and has given employment to many. The supplies of copper, next to iron the most important of our commercial metals, have been so great that for the past quarter-century the United States has produced more than one half of the world's annual supply of copper. We have valuable deposits of almost all the other important commercial metals. Gold, long the coveted prize of fortune-hunters, was discovered here more abundantly than anywhere else before. One writer says:

According to the best available estimates, all of Europe possessed at the time America was discovered less than one hundred million dollars worth of gold in any form. This represented what was left from six thousand years of recorded search for gold. For comparison we may say that this amount is about equal to-day to an ordinary year's output, not of the whole world, but of South Africa or Australia or America separately. With the discovery of America, this condition of gold-poverty was sharply changed. Within twenty years the New World had doubled the gold supply available for European use.⁶

⁵ C. K. Leith, *The Economic Aspects of Geology* (New York: Henry Holt and Company, 1921), pp. 61-66.

⁶ E. C. Eckel, *Coal, Iron and War* (New York: Henry Holt and Company, 1920), p. 143.

Gold representing a value in excess of four billions of dollars has been taken from the mines of the United States. With such an abundance of mineral wealth, is it any wonder that many sought to find their economic opportunities in the quick exploitation of what it had taken all time to form?

Appropriation of water-power. Increasingly, the appropriation and development of water-power have become more attractive to men in search of large economic rewards. Our whole economic system of producing want-satisfying goods is today largely based upon the use of machines, driven by power supplied by coal or petroleum. Our machine civilization is dominantly based on iron and coal. As the better coal becomes more scarce and consequently more costly, men turn from black coal to the "white coal" of running water, and generate hydro-electric power. Already we are said to have developed something like 12,000,000 horse-power. But our streams at their minimum flow, it is estimated, are capable of producing 36,000,000 horse-power, and with the storage of flood waters it is claimed that it would be entirely practicable to double this amount. With the steady growth in our population, which will sometime in the future perhaps number more than 200 millions, and the steady decline in the power resources of coal and petroleum, who can exaggerate the economic opportunity and the mastery over our destiny in the hands of those that control the nation's water-power?

Property rights in natural resources, a source of economic power. There was a time when our natural resources, including fertile land, dense forests, rich minerals, and vast water-power, awaited only the magic touch of hands that were willing to appropriate them for use. In less than 300 years, however, the country has been settled, and they who have come into the possession of our natural resources through settlement or on easy terms have converted their possession claims into property rights. Possession of a thing affords the opportunity to use it. Property in a thing conveys the right of exclusive control over it, including use and withholding from use. Property rights represent something more than the mere opportunity to use; they represent power or control over use. Property rights are so-called "vested rights" of which no man can be deprived without due process of law and reasonable

compensation. Our natural resources have now become the objects of property rights, private and public. And property is power. With the passing of the opportunity for simple appropriation, and with the conversion of the opportunity of possession into the power of property rights, the economic struggle has not only changed in character, but has grown more severe. Men who today want natural resources for their own must acquire them through purchase. That requires accumulated wealth. If men lack such purchasing power, there is no economic choice left to them; they must for a time at least become seekers of jobs and drawers of wages. As long as the option of free land existed in this country, in the days when Uncle Sam was rich enough to furnish every one who wished it with 160 acres of land, the severity of competition for jobs was softened. But the frontier has gone. Because men feel that the ownership of natural resources confers a unique certainty and independence of economic status, land hunger persists, and many men will continue to seek their economic opportunities in obtaining control over what nature has furnished.

THE STRUGGLE FOR CAPITAL

For many individuals and peoples, the economic struggle resolves itself into a struggle to accumulate capital. Capital in this connection usually means money which may be invested in a great variety of income-yielding properties. More specifically it means goods which people value for income purposes rather than for direct want-satisfaction. Today it takes capital to acquire natural resources and to develop them, as well as to engage in commercial or industrial enterprises. So distinctly and largely is this true, that we often speak of our age—roughly the last 150 years—as the “capitalistic age”. For those who are not content to stake their entire economic futures upon the holding of a job, the economic struggle becomes a struggle to accumulate or to win command over capital.

Capital-poverty. If an individual has no capital and happens to live in a rich country whose natural resources, however, have long since been appropriated, he must either work for someone else or migrate to a new country where property rights in natural resources

may still be had for the asking. His capital-poverty greatly restricts his possible economic activities, but it does not close the doors to economic opportunity. If a whole nation, however, is poor in capital, such poverty greatly affects the economic life and opportunities of all the people; life at best is apt to be hard, and the struggle for existence harsh and often unsuccessful. Our country, although today incomparably rich in capital of all kinds, was once capital-poor. A wealth of natural resources, it is true, furnished economic opportunity for the people that settled the country; but their life was simple and rugged when its facilities are compared with the comforts and even luxuries that great masses enjoy today. What was once true of the United States is still true of China, large in population, great in undeveloped resources, but relatively poor in capital. The consequences of the impoverishment of capital and the effects of capital-poverty are being felt today in Russia, Austria, Germany, Poland, China, and other countries, either devastated by war or turned topsy-turvy by revolutions. The struggle for economic opportunity grows immeasurably more severe whenever and wherever capital-poverty exists.

The accumulation of capital. Mankind never got ahead as long as our ancestors lived from hand to mouth. Only when men began to produce more than they immediately consumed was a beginning made toward economic progress. Indeed it has been said that material civilization very largely consists in the accumulation and utilization of surplus. With the accumulation of a surplus beyond daily needs, human energies were liberated for other things. A direct result was an increase in tools and equipment, which enabled men to produce a larger supply of want-satisfying goods. Through the ages men have constantly increased their so-called capital equipment, until today we have tools and machines (the most delicate as well as the most powerful), buildings and structures of all sorts, things animate and inanimate, great stocks of finished goods, all of which have vastly increased our productivity and enabled us to live better.

The individual today, born into a world in which capital is used more extensively than ever before, cannot solve the problem of capital-accumulation any differently from the way in which the race

has had to solve it: he must produce more than he consumes. Most individuals are tempted to live beyond their incomes and hence have all they can do to balance income and expenditures. For the accumulation of capital, whether by society or by a given individual, three conditions are essential:

First, there must be large present productivity. Unless man's labor in coöperation with natural resources and capital equipment is sufficiently fruitful to yield a surplus beyond the bare necessities of life, it is impossible to save.

Second, there must be confidence in the future security of savings. If that confidence be lacking, there is no motive to save; if that security be absent, it is better to spend.

Third, there must be opportunities for the remunerative investment of savings, so as to provide for those future wants which stimulate present saving.

The individual in search of the economic opportunity which the possession of capital affords must do one of two things: either save or borrow the savings of others. To save, he must produce more than he consumes; to borrow the savings of others, he must give such evidence of ability and integrity as to inspire confidence.

Economic power of capital. Capital only accumulates as there is security of property. Property rights confer power upon their owner—the power of exclusive control guaranteed by the state against third parties. But capital is power today in a much more important sense: its possession gives control over the largest economic opportunities. Men are legally free in this country to refine sugar or petroleum, to manufacture steel or woollens, but it takes huge sums of capital to make that legal freedom economically effective. What is more, when capital has been amassed, as it has in the United States, when its use has become essential to the whole industrial life of the nation, the owners of capital usually find it advantageous to effect combinations. Capitalistic combinations, whatever else they seek to accomplish, usually mean the conversion of the economic opportunity which capital affords into some measure of power over our economic life. When some people talk about the domination of "Wall Street"—the financial center of New York—or of some other financial group, they express the conviction (or

perhaps the feeling) that a small group of financiers controls the capital upon which large-scale business enterprise depends. It should be noted, however, that the capital of corporations and of combinations of corporations is made up of the savings, large and small, of millions of scattered investors.

Successful as millions in this country have been in the accumulation of capital, the fact remains that many more millions must find their economic opportunities in the jobs furnished by capitalistic enterprise. In the past there has been social contentment in this country because economic status was not fixed; the transition from poverty to comfort and affluence was not uncommon. Men were intent upon making their fortunes, and the wealth, large or little, which they accumulated gave them a "stake" in the existing economic order. But times are changing. Free land is gone. Frontier conditions are no more. Even the investment frontier is no longer in the United States. Transition from group to group, and class to class, is more difficult. The lines of the struggle for economic opportunity are being much more closely drawn, and economic power is much more concentrated. Economic opportunity men must have. Whether the struggle to acquire and to hold it shall prove the healthy rivalry that promotes economic progress or the antagonism of interests that jeopardizes the entire economic order the wisdom or folly of men must decide.

CHAPTER III

FACTORS AND FUNCTIONS IN PRODUCTION

Any economic system exists for the purpose of enabling man to produce want-satisfying goods. As has just been suggested, much the greater part of the time and energy of all the people of the world is spent in the struggle to obtain these goods. Perhaps it was not always so, and maybe it will some day be different, but today men must produce if they would live. The *Book of Genesis* tells the story of God's planting a garden eastward in Eden, out of the ground of which He made "to grow every tree that is pleasant to the sight, and good for food". He commanded man "to dress it and to keep it", and told him that of every tree of the garden he might eat freely, except of one. But Adam and Eve, as everybody knows, disobeyed, and expulsion from the garden, together with the cursing of the ground, was their punishment. To Adam God said: "Cursed is the ground for thy sake; in sorrow shalt thou eat of it all the days of thy life. Thorns also and thistles shall it bring forth to thee; and thou shalt eat the herb of the field. In the sweat of thy face shalt thou eat bread, till thou return unto the ground."¹ Whatever the cause, throughout recorded history men have had to toil at tilling the soil and otherwise making a living. Few have found an economic Garden of Eden in which food is abundant and life is easy. The first thought of most people has been to find or to make a place for themselves within the prevailing productive system in order that they might be assured of some sort of living. It is to the nature of the productive process, then, that we now turn; to the factors coöperating in it, and the productive functions which must be discharged.

THE NATURE OF PRODUCTION

Definition of production. "Production" means the creation of economic goods. The production of economic goods is normally at and for a price.

¹ *Genesis* 3:17-19.

What is a good? A good is anything capable of satisfying a human want. This power that a good has of satisfying a human want, directly or indirectly, is known as its utility. Strictly considered, utility is a matter of relationship—the relation between a desiring individual and a good external to himself. That *goods have utility*, that they *yield services*, and that they *afford gratifications* are different ways of expressing much the same thought. The good may be something material, such as a loaf of bread, a suit of clothes, or a house; something personal and intangible, such as teaching; something relatively permanent, like the Panama Canal; something that disappears in the very act of creation, such as a performance of *Hamlet* by Sothorn and Marlowe; something artistic, such as the Sistine Madonna, the Venus de Milo, or the Milan Cathedral; something ugly but useful, like the elevated street railways of our cities; something wholesome, such as good literature; something injurious, such as poisons; something socially sanctioned, like relief of the destitute; something outlawed, such as the manufacture and sale for beverage use of alcoholic liquors in some of our States. Whatever it be, if it satisfies a human want, it is a good. It should be noted that the essential idea expressed in the term “good” is the satisfaction of human wants, not the power to confer benefits. Even though the satisfaction of a given want is physically injurious and ethically bad, whatever satisfies it is a good. To say that a thing is a good is not necessarily to imply that it is morally good for man.

Free and economic goods Some goods, however, are so superabundant that it is not necessary to produce them. Such goods we call free goods in contrast to others relatively limited, known as economic goods. Free goods are goods which at a given time and place, and without cost to anyone, exist in quantities sufficiently large to satisfy all wants for them. Economic goods are goods which at a given time and place cannot be obtained without cost in quantities sufficiently large to satisfy all wants for them. The air we breathe, particularly when out-of-doors, is a free good; but the fresh air supplied in many buildings where large numbers of people work or gather, involving as it does the installation of shafts and conduits, and the operation of powerful fans, is an economic good. The water of a mountain spring on unappropriated land is a free good, for

anyone there may partake of it freely; but the water supplied in cities is an economic good—water meters are placed in buildings, and the consumer is charged for what he uses to defray the expense of supplying it. Great natural wonders like Niagara or Yosemite Falls are free goods for observation purposes. The fact that the people of other regions might like duplicates does not invalidate the statement that Niagara and Yosemite Falls are free goods, for free goods are always relative to time and place. Wild berries and wild flowers may be free goods in their native habitat, even though they might bring high prices if sold in the markets of Chicago or New York. Some goods that were once free have become economic, such as land in this country. Indeed, as property rights become more extensive, the number of free goods grows smaller. Some goods may be free to individuals, such as textbooks in some public schools, and yet be economic goods because the cost of supplying them is borne by someone else, in this case by some governmental unit.

Economics is not much concerned with free goods. While free goods are sometimes, as in the case of air, absolutely indispensable to human life and welfare, and while often, though not indispensable, they make living easier for all, the fact that they are superabundant puts them outside the realm of economics. No one wants any more of them than he already has; no one would be harmed if there were a little less. Sometimes things that are ordinarily very useful may exist in such quantity as to prove a nuisance or even a menace. In the low countries known as the Netherlands, water was at one time so superabundant that the whole thought of the people had to be concentrated on the task of getting rid of it. In Palestine, on the other hand, water was so scarce that it affected the entire economic life of the people; much of the imagery of the Old Testament expresses the fact that water was relatively scarce. Today most of the things we need for the gratification of our wants are scarce. Some things are economic goods, primarily, because nature has limited their supply, such as the geographic supply of land, which cannot be changed very much. Most things, however, such as clothing, buildings, and machinery, are economic goods because it costs something to produce them. Collectively economic material goods make up the social wealth of a community. To estimate the social wealth of a

community it is necessary to make an inventory of all the economic material goods on hand at a given time. Included in such an inventory, for example, would be developed natural resources, buildings of all kinds, machinery and equipment, raw materials, transportation and communication facilities, live stock, and finished goods, whether in the hands of dealer or consumer. The free goods of a given country, such as its pure air, its abundant sunshine, plentiful rainfall, numerous navigable streams and bodies of water, are not usually included in its social wealth, simply because they are *free*, not *economic* goods. They are *wealth* only in the original sense that they promote weal or welfare; but the term "social wealth" has come to have a more restricted meaning in both ordinary speech and economic literature, namely, material things that are both useful and scarce. About the only occasion for sometimes including the free goods of a country in the inventory of its social wealth is furnished when we seek to compare the resources and conditions of life of one country with those of another. Goods that are superabundant in one place may be scarce or even lacking in another.

Forms of production. The production of economic goods, the nature of which has just been set forth, takes two chief forms: first, the production of economic material goods or social wealth; second, the rendition of direct personal services. In either case it means bringing utilities into existence that were non-existent before.

Production of material goods. In speaking of production as the creation of economic material goods, it is to be understood that man is limited to the materials and forces which nature supplies. He neither creates nor destroys matter; he transforms it; he moves it from place to place; he preserves it in forms that gratify his wants. The production of economic material goods consists in one or more of the following principal activities: (1) changing the *form* of things; (2) changing the *place* of things; (3) holding things until such *time* as they will be wanted; (4) effecting a transfer in the *ownership* of things. Such changes in the form, place, time, and ownership relations of things to human beings render them more usable and so enhance their utility. Form utility is created when the parts composing an object have been brought together in such a way as to

make it possible for the object to gratify human wants. The farmer who grows our grains, the lumberman who converts logs into boards, the engineer who builds a bridge, the manufacturer who combines many different materials into a dynamo, locomotive, or watch, are all creators of form utility. Any activity that helps, directly or indirectly, in converting raw materials into finished goods is to that extent productive of form utility. Place utility is created in objects by carrying them from places where they are wanted less, or not at all, to places where they are wanted more. All transportation agencies, whether a slowly moving caravan of camels carrying a cargo of dates and figs across the desert of Arabia or a swiftly moving Southern Pacific train of refrigerator cars rushing fruit from California to Chicago, are creators of place utility. Time utility is created in objects by holding them until such time as they will be wanted. Merchants who store goods for future demand (which accounts for their sometimes being called storekeepers) are conspicuous examples of creators of time utility. Agents, brokers, salesmen, and advertisers, whose activities facilitate the legal transfer of goods from one owner to another for whom it has greater utility, illustrate the creation of additional ownership utility. That the addition of both time and place utility to objects is as truly productive as the embodiment of form utility in them is based upon the simple fact that the identical thing may have very different want-satisfying power at different times and places. If we were to follow iron ore from an open-pit mine on the Mesabi range, where it is scooped up by gigantic steam-shovels capable of lifting ten tons at a time and dumped into the cars, perhaps of the Duluth, Mesabi and Northern railway; carried by rail to Duluth and then by ore vessels to the Gary or Pittsburgh regions; transported again to blast-furnaces where it is made into pig-iron; taken to steel furnaces where it is converted into steel; moved to mills where the steel ingots become various structural units, rails, rods, wire, nails, bars, tubes, and sheets; then distributed to all parts of the world, sold and resold, perhaps; and ultimately used in ways that directly or indirectly satisfy human wants—if we were to observe all these operations through an economist's eyes we should see the original iron ore constantly becoming more usable and so more valuable through the addition to it of various form, place, time, and

ownership utilities. Such a series of productive operations warrants the statement:

Things are not fully "produced" until they are in the form in which they are wanted, at the place at which they are wanted, and at the time when they are wanted.²

Production as the rendition of personal services. But production is not confined to the creation of economic material goods. It is true, economists did at one time limit production to the creation of material commodities or wealth, and consider as productive only those who contributed to the creation of valuable material goods. Adam Smith, the first great interpreter of modern economic society, in his *Wealth of Nations*, published in 1776, makes this interesting distinction:

There is one sort of labour which adds to the value of the subject upon which it is bestowed: there is another which has no such effect. The former, as it produces a value, may be called productive; the latter, unproductive labour. . . .

The labour of some of the most respectable orders in the society is, like that of menial servants, unproductive of any value, and does not fix or realize itself in any permanent subject, or vendible commodity, which endures after that labour is past, and for which an equal quantity of labour could afterwards be procured. The sovereign, for example, with all the officers both of justice and war who serve under him, the whole army and navy, are unproductive labourers. They are the servants of the public, and are maintained by a part of the annual produce of the industry of other people. Their service, how honourable, how useful, or how necessary soever, produces nothing for which an equal quantity of service can afterwards be procured. The protection, security, and defense of the commonwealth, the effect of their labour this year, will not purchase its protection, security, and defense for the year to come. In the same class must be ranked, some both of the gravest and most important, and some of the most frivolous professions: churchmen, lawyers, physicians, men of letters of all kinds; players, buffoons, musicians, opera-singers, opera-dancers, etc. The labour of the meanest of these has a certain value, regulated by the very same principles which regulate that of every other sort of labour; and that of the noblest and most useful, produces nothing which could afterwards purchase or procure an equal quantity of labour. Like the declamation of the actor, the harangue of the orator, or the tune of the musician, the work of all of them perishes in the very instant of its production.³

² R. T. Ely, *Outlines of Economics*, 5th ed. (New York: The Macmillan Company, 1930), p. 111.

³ Book II, Chapter III.

Even John Stuart Mill, writing nearly three quarters of a century later (1848) and after there had been much criticism of Smith's position, clings substantially to the same distinction:

I shall, therefore, in this treatise, when speaking of wealth, understand by it only what is called material wealth, and by productive labour only those kinds of exertion which produce utilities embodied in material objects. But in limiting myself to this sense of the word, I mean to avail myself of the full extent of that restricted acceptance, and I shall not refuse the appellation productive, to labour which yields no material product as its direct result, provided that an increase of material products is its ultimate consequence.⁴

To exclude from the field of production and to label as "un-productive" activities which are as useful and important to society as is the whole group of personal services is a distinction which could not and did not last. To say that only they who create material wealth are productive and all others are unproductive, however useful their services, was to make an invidious comparison (even though unintentional) which economists could not afford to let stand—for it put them, too, in the uncomfortable position of regarding their own work as unproductive. Nor is there any good reason for making this invidious distinction between those who make vendible material commodities and those who render personal services. Certainly the services of great surgeons like the Doctors Mayo are as want-satisfying and as important from an economic point of view as the instruments with which they operate. If the making of the instruments is productive, is not the operation also productive? It is attaching an unusual meaning to words to regard the maker of a piano or violin as productive simply because he produces a material good, and to say that Paderewski and Kreisler, who play the piano or violin, are unproductive, even though their services delight thousands of people. Such inconsistency is easily avoided by making the criterion of productiveness any activity that results in the creation of economic goods. Dentists are productive of something more than pain; lawyers, of something more than costs; and teachers, of something more than trouble. Whatever and whoever increases the

⁴ *Principles of Political Economy*, Ashley ed. (London: Longmans, Green and Co., 1909), p. 48.

supply of economic goods, whether these be material goods or personal services, must be considered productive.

Material goods alone, however, make up the social wealth of a community. Personal services, which always require direct coöperation between the persons concerned in the satisfaction of the want, disappear in the very act of rendition—though it is to be hoped that many of them leave a permanent impress behind them.

It has been pointed out that the distinction between material goods or commodities, on the one hand, and personal services, on the other, is more apparent than real, because material commodities, no less than human beings, yield services. Some material commodities, like food, disappear in the very act of rendering the service of which they are capable. Others like the Empire State building in New York are capable of rendering a long series of services through many years. It is quite correct to say that all economic goods are services; some are single services, and others are the carriers or embodiments of a whole series of services. This important distinction remains, however: in a personal service, producer and consumer must directly coöperate in the satisfaction of the want; in satisfying wants through material commodities, the relation of producer and consumer is more impersonal and indirect. If an opera-lover wants to hear and see Tito Schipa in person, he must attend a performance of opera in which this singer appears; his singing is a personal service that disappears in the act of rendition. The phonographic record of his singing, on the other hand, is a material commodity, that is a more permanent embodiment of his singing, and that can be used time and time again without any direct personal coöperation between Schipa and the lover of opera.

To summarize the nature of production:

<i>Production</i> means the creation of	{	<i>Economic Goods</i> including	{	1. <i>Material Goods (Social Wealth)</i> (Embodying form, place, time, and ownership utilities)
				2. <i>Personal Services</i>

Relation of productive to acquisitive activities. Most productive activities are also acquisitive; indeed, they are to a large extent motivated by the desire to obtain income and wealth. Some productive activities do not bring a money reward; personal services, for

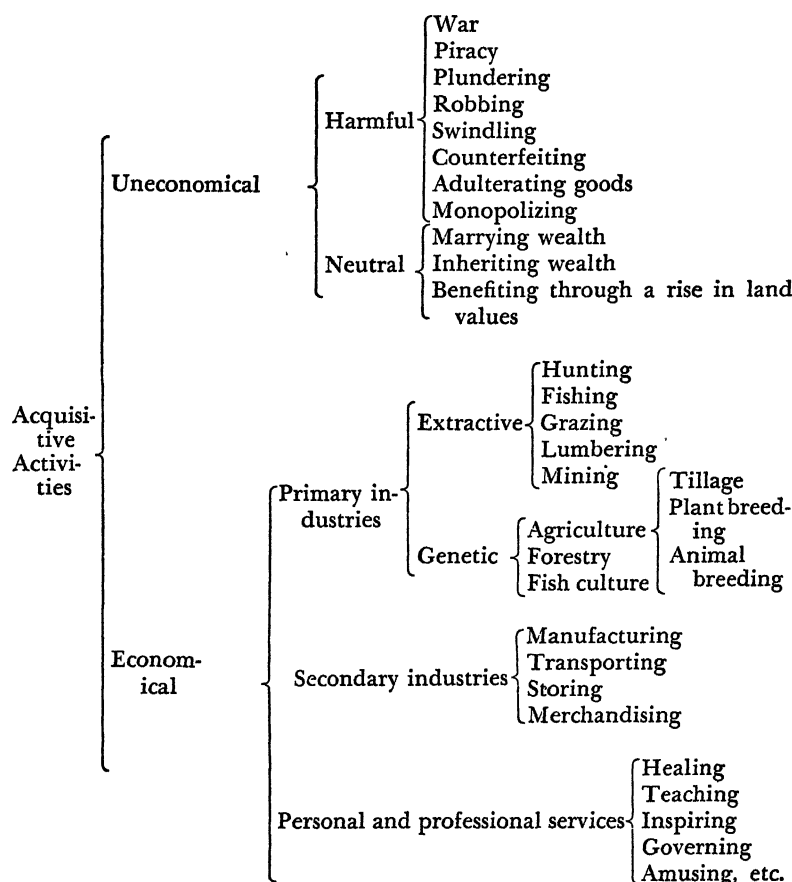
example, are sometimes rendered gratuitously. But for the most part our productively organized society is an acquisitive society, and both the producers of material commodities and those who render direct personal services acquire incomes as a result of their activities. All acquisitive activities, however, are by no means productive. The inheritance of wealth is primarily acquisitive rather than productive. This is not to condemn it, for, wisely regulated, it serves a very useful social purpose. Some acquisitive activities are predatory. A thief enters your house or pocket to get and not to give. He is a parasite living upon the economic goods produced by others. His effort may be great, but it is purely predatory.

The accompanying diagram,⁵ prepared by Thomas N. Carver, classifies our most important acquisitive activities. He distinguishes between uneconomical and economical activities. By the former he means acquisitive activities which from the social point of view do not add anything to the wealth or well-being of society. By the latter he means acquisitive activities through which men contribute to the wealth or well-being of the whole community as much as they get—activities that are productive from the social point of view.

FACTORS IN PRODUCTION

In discussing the production of material commodities or social wealth, it has become traditional since the days of the classical economists (prominent among whom were Adam Smith [1723–1790], David Ricardo [1772–1823], Thomas Robert Malthus [1766–1834], James Mill [1773–1836], and John Stuart Mill [1806–1873]) to distinguish three requisites or factors in production: labor, land, and capital. Land is now more accurately included under nature as a factor of production, and frequently a fourth factor is added: the *entrepreneur* (a French word used to designate the person or group of persons assuming the risk of a business enterprise, the word “enterpriser” serving as an English equivalent). This classification of the factors of production is primarily technological; it looks upon production from the manager’s point of view and regards it as an engineering process in which material commodities are made available

⁵ *Principles of National Economy* (Boston: Ginn and Company, 1921), p. 49.



for use. Technologically each of these factors may be divided into many subordinate groups, for there are many forms of labor, kinds of land, types of capital, and degrees of risk-taking, all coöperating in the process of production. In the unknown ages of geologic time nature worked alone. Even after man's appearance on earth, nature was for thousands of years the dominant factor in production. As man slowly learned some of nature's productive secrets, the labor factor began to grow in productive efficiency and importance. It is hard, indeed, to conceive of a form of economic life in which labor was not a factor. Even during the early days when men, like other animals, subsisted by direct appropriation, it was often necessary to

expend much labor in the successful search for food and in making available for use what nature freely furnished. It is almost as hard, though not impossible, to conceive of a form of economic life in which some sort of crude instruments of production, prototypes of tools, were not a factor. Such instruments of production, themselves the product of man's coöperation with nature, came to be known as capital goods. Nature and labor are as indispensable as ever; capital goods, however, have grown relatively more important during the industrial period than they were at any preceding time. The complexities of modern economic society, especially speculative production for future markets, are now serving to emphasize the importance of the entrepreneur in production. While the proportioning of these factors has changed materially, particularly with progress in the technical arts, all are indispensable in the modern production of material commodities or social wealth.

Labor. Any human effort that helps in the creation of economic goods, whether these be social wealth or direct personal services, is productive labor. Productive labor may be mental or physical, skilled or unskilled, directly or indirectly applied in the creation of want-satisfying goods. Whatever its type, labor cannot be dissociated from human personality. It is the numbers and quality of the people then that determine the quantity and the quality of the productive labor supply of any community or nation. The physical powers, mental energy, and moral traits of a people, and particularly its stock of acquired ideas, give that people a high or low place on the scale of economic civilization. Of the utmost importance for the general welfare of a people is the productive efficiency of its men and women. Whatever improves the quality and efficiency of the human factor in production directly improves productiveness, for man is the most active agent in production.

Human effort not always productive labor. Not all human effort, it should be noted, is productive labor, because not all of it is spent in the creation of economic goods. Much human effort is exerted in the direct satisfaction of one's own wants. A game of tennis played for the mere pleasure of the participants may involve a large amount of very vigorous activity, but such activity is not productive labor. Some people are so lackadaisical that even eating seems a

prodigious task, but the effort of eating is not productive labor. Some people are even very active when they sleep, as every Pullman traveler knows, but such activity is productive of nothing but disturbance and exasperated remarks. To be sure physical exercise, eating, and sleeping may fit one for future productive labor, but *nothing is gained by classifying as productive one's own activities resulting in the direct and immediate satisfaction of one's own wants*. Some human effort, moreover, is wasted and consequently is not productive. All the energy that has gone into the construction of perpetual motion machines, or into the attempt to accomplish any other Sisyphean-task, has been wasted. Some human effort, again, is merely predatory and accordingly not productive. The clever swindler selling bogus oil securities may make great mental effort, and the daring robber-bandit may have to put forth great physical exertion to get away with his loot, but all this effort is not productive labor. Labor to be productive must result in the creation of economic goods; either a material commodity must be made more usable or a personal service must be rendered.

Technical division of labor. Labor, as a factor in modern production, has become highly specialized. The specialization of labor has very greatly increased its productive efficiency. Adam Smith, who saw the beginnings of the modern division of labor about a century and a half ago, was so much impressed with its importance in our economic life and organization, that he began his *Inquiry into the Nature and Causes of the Wealth of Nations* with what has become a celebrated discussion of the division of labor. Striking passages from this dissertation have been quoted ever since. "The greatest improvement in the productive powers of labour", says Smith, "and the greater part of the skill, dexterity, and judgment with which it is anywhere directed or applied, seem to have been the effects of the division of labour."⁶ Inquiring into the causes of the superior productiveness of the division of labor, he goes on to say:

This great increase of the quantity of work which, in consequence of the division of labour, the same number of people are capable of performing, is owing to three different circumstances; first, to the increase of dexterity in every particular workman; secondly, to the saving of time which is

⁶ *Wealth of Nations*, Book I, Chapter I.

commonly lost in passing from one species of work to another; and lastly, to the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many.⁷

Other writers of the Classical School, who lived during the time when new industrial methods, including the division of labor, were being most rapidly introduced, have pointed out additional advantages. Little has been added to the analysis of the Classicists, particularly that of John Stuart Mill.

Six advantages of the division of labor, all contributing to the increase of productive efficiency, may be cited.

First, the development of greater skill. When a workman repeats an operation over and over again, he naturally becomes exceedingly expert in its performance. Certain workers repeat a single motion 20,000 to 30,000 times a day. "Practice makes perfect" because the constantly repeated operation becomes habitual.

By practice is built up the specialized experience which is the explanation of achievement in all kinds of work—the craftman's "sense" of the possibilities of his materials, the dealer's "instinct" for his market, the physician's "intuition" of disease, the connoisseur's "feeling" for quality in the objects of his study. Delicate tasks come to be performed with accuracy, the speed of work is increased, the strain involved in the performance of any single task is reduced; the routine of work is, in James's phrase, handed over "to the effortless custody of automatism".⁸

Second, a gain of time. Continuity of application to a single task, or at most to a few operations, makes for speed and the most economical use of time, provided the worker does not become overtired. It takes time for the mind and body to adjust themselves to every change of functioning. The division of labor by reducing the number of such changes to a minimum saves time.

Third, the better adaptation of work to the worker. The splitting-up of any industrial process, such as the manufacture of automobiles, into a whole series of operations provides work for people of very different capacities. Operations requiring high skill, superior intelligence, or great physical strength and endurance can be assigned to those capable of performing them; easier tasks can

⁷ *Wealth of Nations*, Book I, Chapter I.

⁸ Henry Clay, *Economics for the General Reader* (New York: The Macmillan Company, 1918), p. 22.

be found for those not so qualified. The modern scientific management movement is based in part upon the idea of procuring greater efficiency through the better adaptation of tasks to the workers.

Fourth, the more advantageous use of capital goods. The shoemaker who makes a pair of shoes to order requires a variety of tools, some of which are idle the greater part of the time. In a modern shoe factory, however, where there is minute division of labor, the machines are in use virtually all the time, so skilfully are materials routed through the factory. This better utilization of capital equipment makes for greater productivity.

Fifth, the stimulation of inventions and the substitution of machinery for human labor. The simplification of industrial operations has revealed the possibilities of improved methods; inventions of machines have often resulted, leading in the long run to great economies of operation and increased productiveness.

Sixth, shortening of the period of apprenticeship required to learn the technique of a job. It often took years to learn a trade; it takes only a few days to become fairly expert in handling machine jobs. This enables both the individual and society to profit more quickly by the laborer's productive powers.

Such obvious advantages of the division of labor have not been obtained without the payment of a price. There is a reverse side to the picture that is not so attractive. The advantages just stated largely emphasize the wealth side of production; there is a human side that cannot be ignored. Is the increased productivity which the division of labor makes possible being purchased at too great a price? Carlyle, Ruskin, and William Morris, and more recently Galsworthy, Wells, and Bernard Shaw, have been scathing in their denunciation of the degrading effects upon the individual of our machine civilization with its accompanying division of labor. Unquestionably, the division of labor, often involving endlessly monotonous repetition of detailed tasks, has a narrowing and deadening effect upon the laborer. It puts a premium upon the docile type of mind, often dull of vision and lacking in imagination, which is willing to subordinate itself to the pace of the impersonal machine. It tends to destroy initiative and versatility, qualities badly needed in industrial leadership. It deprives most workingmen of the

real joy in work that comes through the gratification of the constructive instinct. It makes the laborer run the risk incident to all specialization, the risk that the market for his services may be suddenly swept away by some industrial change beyond his control.

Such intensely human considerations do not necessarily imply, however, that society should not avail itself of the advantages of the division of labor in production. There is no thought of abandoning them. The division of labor is too large a factor in the great productiveness of modern industry, with the larger incomes and higher standards of living which this makes possible, for society ever to go back to the system of the handicraft era. What is needed, rather, is a more general recognition of the human aspects of the division of labor, and more widespread adoption of means which serve to offset its disadvantages. The shortening of the working day, which has been going on during the past century, has contributed more than any other single factor to counteracting these drawbacks. It has provided a certain amount of leisure from routine tasks. Intelligent use of leisure time in education, recreation, physical development, and the activities of various groups and organizations helps to make life seem something more than a continuous round of humdrum activities involved in getting a living. It was once customary to emphasize only the market limitations of the division of labor; obviously specialization in production must always be limited by the extent and steadiness of the market for the specialized product. It is now common to emphasize the human limitations of the division of labor and to insist upon correctives to its disadvantages. In striking a balance, it must be admitted that the advantages of the division of labor are far greater than its disadvantages; and that society cannot possibly abandon it without doing much greater harm than the evils that would thereby be eliminated.

Nature. Nature, as a factor in production, means all those free gifts of nature which are used in the creation of economic goods. Because the most obvious and important of these natural resources was the land that sustained man's life and provided him with the raw materials for his economic activities, it became customary to speak of the land factor in production. The custom still persists, although it is recognized that "nature" is the more exact, because

the more inclusive, term. Most people, except professional economists, balk at referring to air and water as "land". They seem to have had sufficient past experience with all three to have learned that there are some rather important practical differences. In commenting upon the use of terms in another connection, John Stuart Mill very wisely says:

When employing terms which common usage has taken complete possession of, it seems advisable so to employ them as to do the least possible violence to usage; since any improvement in terminology obtained by straining the received meaning of a popular phrase is generally purchased beyond its value, by the obscurity arising from the conflict between new and old associations.⁹

Nature, as a factor in production, includes all the materials and forces supplied without the aid of man and used in the process of production.

Nature then includes land. Both the quantity and quality of land are of the utmost importance in production. What the size of the population is to the labor factor, area is to the land factor in production. It takes land area to catch the sunlight and rainfall, and land fertility to bring forth the vegetation upon which man's life depends. Nature includes water—the streams, lakes, and seas. Who can measure the importance for production of the Nile to ancient Egypt or of the Mississippi to the United States? Who can estimate the productive importance of the Tiber to Rome, the Thames to London, or the Hudson to New York? Think of the effects of the Mediterranean and of the Great Lakes upon the productive life respectively of Southern Europe and the Northern United States. Nature includes the atmosphere which, a hundred miles or so in thickness, envelops the earth and supplies all growing things with the oxygen indispensable to life. The temperature and humidity of the atmosphere, varying greatly from the equator to the poles, have correspondingly affected the economic life of peoples living in the various zones. Nature includes the profusion of wild life, vegetable and animal, upon which primitive man had to subsist and which he slowly learned to domesticate. Nature includes the mineral resources upon which our modern civilization so largely

⁹ *Op. cit.*, p. 48.

rests. Nature includes the great forces external to man, such as solar heat and light, gravity, wind, watercourses, natural gases, and electrical energy, which man has gradually learned to control for purposes of production. Nature is indeed an indispensable factor in the production of material goods. Differences in nature's bounty account to no little extent for differences in the productiveness of peoples in different regions of the world.

Since it is the land on which man lives and does most of his productive work, its supreme economic importance among nature's gifts is easily understood. Unlike the seas, the atmosphere, and the great forces of nature, land has become an economic good and accordingly the object of property rights. This is a fact of the utmost importance in our economic life, the consequences of which will be discussed in other parts of this book.

Capital. *Its meaning as a production good.* Produced capital, as a factor in production distinguished from natural resources, includes those products of man's past efforts which are used in the further production of economic goods. Both produced capital and land, when devoted to the production of economic goods, are sometimes called production goods or producers' goods to distinguish them from consumption goods or consumers' goods. Production goods satisfy human wants only indirectly, that is, through the creation of want-satisfying goods. Consumption goods are goods in the hands of the final consumer intended for use in the direct satisfaction of his wants. A linotype machine and a printing-press are production goods; the newspapers they turn out, when in the hands of readers, are consumption goods. Men are said to *invest* money when buying producers' goods; they are said to *spend* it, when buying consumers' goods. In buying the former the question is "Will the investment pay?" In buying the latter, "Can I afford the expenditure?"

Forms of produced capital. Produced capital includes such man-made goods as the following when they are used for the further production of economic goods: (1) buildings used for productive purposes, (2) machinery and tools, (3) raw materials, (4) farm and draft animals, (5) permanent improvements in the physical environment, (6) transportation and communication facilities, (7) finished goods in the hands of dealers, (8) money.

Distinction between produced capital and land as technological means of production. In speaking of produced capital as instruments created by man for further production, land and other gifts of nature are obviously excluded. There seem to be valid reasons for distinguishing between land and produced capital as concrete means of production, whatever may be true of them as means of acquiring income. The distinctive qualities of land are none the less its qualities when land is called "natural capital", as it is by some writers.¹⁰ The primary distinction between land and produced capital (which is the kind of capital considered in this paragraph) as concrete factors of production goes back to differences in their origin. Land is the gift of nature; capital is the product of man working upon the materials of nature. To some extent it is true that not only capital, but also land, is man-made. Man has done a great deal in making land available for use: in draining or irrigating it; in reclaiming it from bodies of water; in maintaining and improving its fertility. Land is not altogether "ready-made". Some of these improvements are now indistinguishable from the land itself. But nevertheless the land in its original condition was the gift of nature and not the product of man; it was thus used by man and in some places is still so used. Man has had practically nothing to do with the location of the land on the earth's surface; with its conformation, which is of great economic importance; with the extent of the land area; or with its capacity to furnish support for his structures. The fertility of the soil, too, was originally a gift of nature; with use, man has had to replace and improve it.

Not only do land and capital as factors in production differ in origin, they also differ in mobility. Land is immovable; capital is relatively mobile. In some ways, such as changes in soil fertility, grading, draining, and reclaiming, land seems no more fixed than capital. But after all, most forms of capital goods can be transported from one place to another, which is something that cannot be done with farms or city lots.

Again, land is relatively permanent. Some forms of capital, on the other hand, disappear in a single act of production; others last

¹⁰ Cf. A. S. Johnson, *Introduction to Economics* (Boston: D. C. Heath & Co., 1922), p. 243.

for years; but nothing made by man has yet approximated the permanency of nature's handiwork.

The most important technological distinction between land and capital, however, consists in this: the supply of land is limited; the supply of capital is capable of indefinite increase. At any one moment of time for a given individual, to be sure, the supply of capital is as fixed as the supply of land; but society can in the long run indefinitely increase the supply of capital, which is utterly impossible in the case of land. This characteristic difference between the supply of land and the supply of capital affects the income derived from them. Whenever it is possible indefinitely to increase the supply of a productive agent, the returns from various units of that productive agent tend to be equalized. On the contrary, when it is impossible easily to increase the supply of a productive agent, such as land, the returns from various units of that productive agent tend to become very unequal.

Relation of productive to acquisitive capital. Important as are these physical differences between land and produced capital, they pertain more particularly to land and capital as technological instruments of production than as sources of income. Production and acquisition are both uses to which capital and land are always put. In economic literature capital and land have been most frequently separated as means of production. In everyday speech, on the other hand, they are constantly grouped together as means of acquisition. From the ownership or property point of view all wealth which yields income is capital. It should be noted at once that the term "capital" both in economic literature and in ordinary speech is commonly used to convey at least two important but different meanings: capital as a *concrete instrument produced by man for further production*, which is the sense in which the term has been used so far in this chapter; and capital as *all property held for procuring income rather than direct enjoyment for its owner*, which is the pecuniary meaning that prevails in the business world. If qualifying terms are necessary, the former meaning may be referred to either as *produced capital*, when emphasizing its origin; or as *productive capital*, when denoting its purpose. The latter mean-

ing may be referred to as *acquisitive capital*, whatever the nature and origin of such capital may be. In the business world men speak about "investing capital", regardless of whether their capital finds concrete expression in land, in buildings and equipment, in tangible material things, or in intangibles such as good-will and patent rights. Any income-yielding investment, whatever its concrete form, is capital. Its value may be measured in dollars. Its legal ownership may be evidenced by stocks, bonds, notes, deeds, or other instruments conveying title. The business man's concept of capital is broad enough not only to include produced goods used in further production, but also land and intangible ownership-rights from which income is expected. Since economics is more concerned with problems of income than it is with the technique of production, the acquisitive aspects of capital concern us more than its technological attributes. Acquisitive capital, most of which is used productively, is in part the gift of nature and in part the product of man. The income derived from it is not all of one kind, as will be shown later, and may be treated differently for various social purposes, such as taxation.¹¹

Roundabout character of capitalistic production. Only the simplest kind of wealth production can be carried on without the aid of capital goods. As long as man had to depend upon his own unaided hands to do what he could with the materials furnished him by nature, his economic life remained very crude and simple. Primitive man was immeasurably aided in his productiveness when he learned how to use sharp stones in killing his prey and in cutting objects, and when he stumbled on the use of flint stones in striking fire. Stones and sticks were among the earliest of man's instruments of production. Man's laborious progress from the scanty production of the early Stone Age to the marvelous productiveness of modern economic society abundantly shows how hard it is to produce wealth without the aid of capital goods, and how greatly productiveness is accelerated when capital goods have once been acquired. No one has expressed this idea more simply or effectively than Eugen v. Böhm-Bawerk:

¹¹ When the term "capital" is used alone in everyday speech, it almost invariably means capital in its acquisitive aspect. This meaning of capital will be developed in a following chapter.

A peasant requires drinking water. The spring is some distance from his house. There are various ways in which he may supply his daily wants. First, he may go to the spring each time he is thirsty, and drink out of his hollowed hand. This is the most direct way; satisfaction follows immediately on exertion. But it is an inconvenient way, for our peasant has to take his way to the well as often as he is thirsty. And it is an insufficient way, for he can never collect and store any great quantity such as he requires for various other purposes. Second, he may take a log of wood, hollow it out into a kind of pail, and carry his day's supply from the spring to his cottage. The advantage is obvious, but it necessitates a roundabout way of considerable length. The man must spend, perhaps, a day in cutting out the pail; before doing so he must have felled a tree in the forest; to do this, again, he must have made an axe, and so on. But there is still a third way; instead of felling one tree he fells a number of trees, splits and hollows them, lays them end for end, and so constructs a runnel or rhone which brings a full head of water to his cottage. Here obviously between the expenditure of the labour and the obtaining of the water we have a very roundabout way, but, then, the result is ever so much greater. Our peasant needs no longer take his weary way from house to well with the heavy pail on his shoulder, and yet he has a constant and full supply of the freshest water at his very door.¹²

Capitalistic production is roundabout production because it involves the creation of intermediate products which are used in the production of consumers' goods. Man working in coöperation with nature can produce many things of use in the direct satisfaction of his wants. But if he is willing to spend time and effort in first producing goods that he cannot consume directly, but which will aid him in his future productive efforts, he will ultimately have a greater stock of consumers' goods. The roundabout or capitalistic methods of production, then, are more indirect but also more productive. The fact that most men today do not themselves make the tools, machines, and other capital goods with which they work is simply one aspect of our specialization. Men at present must save in order that their savings may buy the capital goods needed for efficient production. Saving is the price men pay for the roundabout methods of production; increased productiveness is the reward they reap. Both saving and productiveness are principles of the utmost importance in our understanding of capital as a factor in production, and of the price we have to pay for its use.

¹² *Positive Theory of Capital*, tr. by William Smart (London: Macmillan and Company, Ltd., 1891), p. 18.

As factors in production man and nature are primary; capital is derivative, being the product of man's labor applied to the materials and forces of nature. In a sense, capital is not a factor of production coördinate with labor and nature. Neither is there any independent productiveness of capital. When we speak of the productivity of capital, we mean the productivity that is achieved through the capitalistic application of labor to the materials of nature.

Replacement of capital. Capital goods constantly perish in the process of production. Some capital goods, known as circulating capital, are all used up in a single act of production, such as the coal burned and the raw materials used in a manufacturing plant. Such capital goods may be thought of as either bodily passing over into their product or at least of being used in creating it. Other capital goods, known as fixed capital, such as the buildings and machinery of a manufacturing plant, last through a series of productive operations often spread over years. If the life of a machine is ten years, it may be thought of as giving up only one tenth of its value to its product in any year. Sooner or later, however, all capital wears out and needs to be replaced. The productiveness of a capital good must be at least great enough to compensate its owner for having saved to get it and also to enable him to maintain it and to replace it when its productive usefulness is over.

The entrepreneur. The entrepreneur (enterpriser) in production is the person (or group of persons) who assumes the risk of the success or failure of the enterprise as a whole. He profits if the business succeeds and loses if the business fails. To carry his risk with success and profit means above everything else that he must be successful in the organization and direction of the factors of production or at least wise in the selection of competent managers. Risk-taking is the primary function of the entrepreneur. It is the entrepreneur who initiates production, lured on by the hope of profit, and often of power and prestige. It is he who sees, or thinks he sees, the productive opportunity. With faith that the demand of the market will justify his venture, he risks his own capital in the enterprise, as a rule borrows capital funds from others, acquires natural resources, and hires labor. For the services rendered the enterprise and the uses of property made available to it, he contracts to pay stipulated

sums. As security for his contractual obligations he pledges his own capital invested in the enterprise. If the business fails, he stands to lose all that he has risked, for all others interested have a prior claim against the business. If the enterprise succeeds, he claims as a reward for the risk that he has taken the gains that have been made.

In very small enterprises, such as some retail stores, repair shops, and farms, all the productive functions may be united in a single person, or at most a single family. A man conducting a small-town grocery store may himself furnish all the capital, thus assuming the entire financial risk, wait on all the customers, manage the enterprise—and still run no risk of becoming a nervous wreck. But if his business grows, he may have to borrow additional capital, paying interest for it, or invite others to go into business with him, sharing the risk and the profits; he will have to hire wage-earners to wait on customers, deliver goods, keep books, and attend to other business details; he will have to devote a larger part or all of his time to the management of the enterprise or hire someone to do this for him. His store, indeed, may eventually be absorbed by one of the chain grocery store corporations, such as the Great Atlantic and Pacific Tea Company, in which there is complete differentiation of functions. In large corporations generally, risk-taking ownership is more or less separate from management. Management, once incidental to ownership, has now very largely become a specialized function. To be sure, the owners are responsible for the delegation of the management, and the managing officers and other managing employees often are stockholders, but ownership and active management are combined in relatively few of the entrepreneurs in our largest corporations. Most such entrepreneurs are absentee owners.

As a factor in production, an entrepreneur is a person functioning in a special way with his accumulated savings. He occupies a pivotal position in our modern economic society. Risk-taking is inevitable and socially necessary if goods in adequate amounts are to be produced. Upon the quality of our entrepreneurs and the wisdom shown by them in the selection of competent managers, who in turn apportion labor and capital, the productiveness of economic society largely depends. Since freedom of enterprise, only slightly limited by government, is the rule in the modern economic world,

anyone is at liberty to become an entrepreneur in any kind of business he chooses, provided he is able and willing to take the risk. The competition of others, through years of adversity as well as of prosperity, will tell him whether he has chosen well.

FUNCTIONS IN PRODUCTION

As previously stated, the foregoing classification of the factors of production is primarily technological. The production of material wealth is thought of as an engineering process in which some men must take risks and then under skilful management so apportion labor and capital that through their coöperation greater values will be created than are expended in the process. To a large extent, production is such a process. But more important than any mere differentiation among labor, natural resources, capital, and the entrepreneur as technological factors in production is the differentiation of the socially necessary functions involved in production. These are the functions of *working*, *waiting* or *saving*, *risk-taking*, and *management*. To some extent they have already been suggested in the preceding discussion; they will have to be studied much more fully when we come to consider the value of the various services performed in production.¹³ Economic systems may come and go; but in a world of scarcity these functions go on forever. Should the economic radical, be he socialist, communist, or anarchist, ever be able completely to reconstruct the economic world according to his liking, it would still be true, however disappointing it might prove to some, that men must work and save, assume risks and manage enterprises.

Without work by man we should still be back in the direct appropriation stage of economic life. Nature furnishes the materials and some of the most important conditions for production. But man through almost infinite pains has had to learn nature's secrets. By working upon the materials of nature and in harmony with nature's laws, he has been able to produce the goods that have made possible a more abundant life. Nature has slowly learned to obey him for purposes of production. Saving enables men to work to better advantage. It consists in not consuming all available income. The in-

¹³ Cf. Chapters XIX-XXII.

come saved from immediate consumption then becomes available for investment in production goods, which in turn increase man's productiveness. Risk-taking is accentuated by the lengthening of the productive process. As the number of hands and machines increases through which a good passes from producer to consumer, risks multiply. Man must take them and thereby set the labor and capital into motion that will produce want-satisfying goods. The organization or management of production has become an increasingly important function with the growth in the capitalistic character of production and the development of our division-of-labor economy. It is apparent then that man is the active agent in production; nature, the passive factor. But in the productive process the two must always coöperate. It is man who initiates production; it is nature which supplies the necessary materials and conditions.

This functional analysis of production puts the primary emphasis upon human activities in production. It assumes the existence of the material universe and man's ability to use it. It is man who functions in production. Working, saving, risk-taking, and managing are his activities in the process of making goods available for use. The functional analysis emphasizes activities or processes rather than the question of who's who in production. As a matter of fact, the person labeled a capitalist or landowner may be engaged in all four of these activities in production. His primary function may be that of saving and making his capital available for use, but he may also share the risk and management of the enterprise and contribute labor to it. So too, the workingman, who primarily contributes his labor, is now in many corporations participating in other functions as well. In some he has a voice in the management. Part of the capital of many corporations has been created by his saving, and in many he is carrying a direct financial risk.

Working, saving, risk-taking, and managing are today all indispensable functions in production. Should any of them fail to be performed, or should there be an inadequate supply of any, productiveness would at once suffer, with consequent hardships for all. To stimulate the discharge of these socially necessary functions to an adequate extent, economic society offers various inducements: wages for working and management; interest for saving; profits for

the taking of risks. If the present scale of rewards were materially reduced, men would still have to produce in order to live, but unless compulsory measures were adopted the amount of productive activities might show a marked decline.¹⁴ Accordingly it may be said that the production of economic goods, to which all the agents or factors in production contribute, is largely dependent upon the prices that can and will be paid for socially necessary functioning in production.

¹⁴ The relation between inducements or rewards and productive functioning will be an important theme in the chapters on wages, interest, rent, and profits.

CHAPTER IV

THE INDUSTRIAL ORGANIZATION OF PRODUCTION

RELATIVITY OF ECONOMIC INSTITUTIONS

The wants of man, which motivate his economic behavior and which impel him to struggle for the economic opportunity and power that ensure steady want-gratification, must all at any given time be satisfied through the prevailing economic system. Had we been born thousands of years ago, we might have been members of some social group subsisting on what nature freely furnished; or perhaps members of some roaming pastoral clan; or possibly of some tribe that had already begun to cultivate the land. Hundreds of years ago we might have been born into the slavery or serfdom which long prevailed in agricultural communities; or into the guild system of medieval cities; or into the domestic system of manufacturing, that thrived during the centuries immediately preceding the present economic era. As it happens, the economic system we find prevailing throughout the Western World differs strikingly from all preceding systems. We call it industrialism. It is only about 150 years old, which is mere youth as economic systems go. It is as members of this industrial order that we must obtain the incomes with which to gratify our wants. The present system may endure or perhaps be overthrown; it may be modified or perhaps decay. What deserves emphasis is that economic systems are created by man for the purpose of satisfying his wants; that economic institutions are relative to time and place; that each succeeding generation is trustee of all the economic progress that has been made; that abuse of this trusteeship may easily put economic civilization back thousands of years; that man, who has created all, can also destroy all. Nothing is permanent. Heraclitus' ancient philosophy, teaching that all is change, seems strikingly exemplified in the economic world of today. Certainly in economic relations nothing is permanent except as we will to make it so.

EVOLUTION OF INDUSTRIALISM

The present industrial organization of economic society can be better understood by surveying the economic systems that preceded it. Industrialism is the culmination of a long evolutionary process that reaches back into the beginnings of man's conquest of the materials and forces of nature. Writers on the evolution of our economic society distinguish various periods, according to the point of view from which they make their studies. For present purposes it will serve to show how the self-sufficiency of social groups has steadily diminished and the interdependence of groups has constantly increased, as the area in which goods could be bought and sold has grown larger. To see our present industrial period in perspective, three periods in the evolution of our economic society must be differentiated: (1) the self-sufficing household economy, (2) the commercial or handicraft economy, and (3) the industrial economy.

The self-sufficing household economy. The self-sufficing household economy was an economic organization in which the household, whether of family, clan, or tribe, produced what it consumed and consumed what it produced. The food that was eaten, the clothing that was worn, and the shelter that was needed were all produced within the household. Economic self-sufficiency has characterized many groups, in both ancient and modern times. Wherever and whenever a group has been isolated, it has had to be self-sufficing or perish. In the main, the period of the self-sufficing household economy included the stage of direct appropriation, the pastoral stage, and the agricultural stage.

The stage of direct appropriation. In the stage of direct appropriation, the dominance of nature over man was the outstanding fact. Man was the subject and slave of nature. He found things; he did not make them. He passively accepted natural conditions as he found them, without attempting to adapt them to his uses. Like other animals he roamed about in groups for food and protection. As Karl Bücher says: "From the beginning man was primarily dependent upon vegetable nourishment, and whenever tree-fruits, berries, and roots were to be gained, he first made use of these. In case of need

he turned to petty animals which could be consumed raw: shell-fish, worms, beetles, grasshoppers, ants, etc. Like the lower animals in continuous quest of food, he devoured at the moment what he found without providing for the future.”¹ It is not an attractive picture, but it doubtless correctly suggests the nature of man’s economic life before he had mastered even the rudiments of the technology that enabled him slowly to adapt nature’s forces and materials to his own purposes. This first stage in man’s economic evolution has sometimes been called the hunting and fishing stage, but the designation is not exactly appropriate, for hunting and fishing are but two phases—and not the first—of the search for food, which included the direct appropriation of whatever nature furnished.

The pastoral stage. While it is erroneous to think that the hunter and the fisher were necessarily succeeded by the herdsman, the succession was common, especially among the people of Asia and Northern Africa, where climatic conditions permitted. The domestication of animals marked a gigantic step forward in man’s economic life. However it may have occurred to him, the taming of certain animals, herding them, caring for their increase, and training them to help him in his work had this important result: it afforded man a more abundant and regular food supply, and enormously increased his power over nature. To the mere finding of things, often a precarious means of existence, he could now add the raising of animals. The pastoral stage in the economic life of a people is nowhere more beautifully portrayed than in the Old Testament.

The agricultural stage. Again while it is erroneous to suppose that the herdsman was inevitably succeeded by the tiller of the soil, that succession, too, was common. If we could produce a motion-picture film of the economic evolution of many a social group, we should find that the pictures of shepherds dwelling in tents and moving from place to place in search of better pasture for their flocks and herds would gradually dissolve and pictures showing cultivated fields would come into view. In speaking of the development of primitive agriculture, E. R. A. Seligman explains:

¹ *Industrial Evolution*, tr. by S. M. Wickett (New York: Henry Holt and Company, 1901), pp. 42–43.

When, again presumably by accident, it was found that the seeds would multiply themselves, and that the stick was more effective for grubbing than the finger, we have the beginning of the cultivation of the soil. Just as human foresight led men under certain conditions to preserve animals in order to secure an increase, the same quality led them under other conditions to preserve plants. If flock tending is a result of the domestication of wild animals, agriculture is a result of the domestication of wild plants.²

While there had been some rather primitive cultivation of the soil in the earlier stages, it was distinctly subordinate to hunting, fishing, and herding. Gradually, however, man acquired some knowledge of nature's operations. He learned how to prepare the soil, what kind of crop to grow, when to plant the seed, how to care for the growing plants, when to gather the crops, and how animals and simple tools could help in this work. The agricultural stage, accordingly, marked a well-defined advance over the pastoral stage in man's control over nature. To the finding of things and the raising of animals man added the food resource found in the raising of plants, thus making his food supply both more abundant and more regular. The agricultural stage is most perfectly illustrated by the manorial economy of England, which with modifications also prevailed on the European continent during the Middle Ages. The plantation system of the South and frontier life in the settlement of the American continent, although not uninfluenced by the industrial changes already taking place, also suggest what life was like in the agricultural stage.

Throughout the thousands of years represented by the direct appropriation, pastoral, and agricultural stages, during which man slowly learned how to work with nature rather than merely to take what nature offered, economic self-sufficiency was largely characteristic of every group. With increasing control over the means of subsistence, population grew. When man had learned how to make a living by cultivating the soil, he largely gave up his wanderings in quest of food for himself and his beasts and settled down. With a fixed abode, private property in land arose. Wealth came to be measured not only in herds and flocks, but also in lands. Slavery, and later serfdom, prevailed. There was very little trade. To be

² *Principles of Economics*, 6th ed. (New York: Longmans, Green & Co., 1914), p. 73.

sure, some groups that possessed advantages in the production of certain coveted commodities, whether the advantage was in skill or in available natural resources, came to produce a surplus and to barter it with other groups for goods they wanted. Such trade, however, in the beginning was inter-group rather than intra-group, and distinctly supplementary to an otherwise complete economic life. But with the gradual growth of trade between groups and between members within a given group, the self-sufficiency of the household began to disappear, and trade led to a new era in the economic evolution of society.

The commercial or handicraft economy. In the commercial or handicraft economy production was carried on primarily for the market rather than for home consumption. Both within the group and between groups there was regular exchange of surplus goods. Many men lived by trading rather than by raising, growing, or making things. The typical unit of economic life in the commercial economy was no longer the family, clan, or tribe, no longer the manor, plantation, or *mir*, but rather the town—notably the medieval town. Trade was the great builder of towns. The economic unity of the town, however, consisted not only of the aggregation of buildings and people we ordinarily associate with the term, but also of all the surrounding agricultural territory commercially tributary to the town. Sometimes, as a matter of fact, the town was nothing more than a manorial village, grown somewhat more populous than was usually the case. The commercial or handicraft economy found its most conspicuous expression in the guild system and the domestic system.

The guild system. Guilds were organizations first of merchants, and somewhat later of craftsmen. The merchant guilds were the most influential economic organizations in Europe from the eleventh to the fourteenth century. They were organizations of traders. To the markets of the towns were brought the surplus products of surrounding manors, food products in particular; foreign goods were brought there, especially goods which the town itself could not produce—salt, spices, rare wines, scarce metals perhaps; goods manufactured by the tradesmen themselves and by craftsmen living on the rural manors were also either offered in the shops of the

trading craftsmen or brought to the town markets for sale. The merchant guilds existed for the purpose of controlling this trade—of monopolizing it, we should say today. No one could trade in the towns except with the permission and under the regulations of the merchant guilds. Since practically everyone in the towns lived by trade, virtually all the burgesses (as the citizens of the towns were called) were members of the guild merchant. Indeed in the heyday of the guild, it dominated the government of the town; in some towns the government of the guild was indistinguishable from the government of the town. The guilds were the “big business” of the Middle Ages, and apparently were as interested in the politics of their day as business is interested in politics today.

The guilds merchant were gradually superseded by the craft guilds as the dominating economic organizations of the time, but for many decades the two types of organization existed side by side. Craft guilds were common beginning with the twelfth and continuing through the sixteenth century. In many towns a man was a member both of the guild merchant and of the guild of his own special craft; as a seller of cloth, for instance, he belonged to the merchant guild; as a weaver of cloth, to the craft guild of weavers. The development of the craft guilds coincides with the development of the handicraft system and with the growing importance of industry in the economic life of the town. The early craftsman doubtless arose in the agricultural stage. Special aptitudes set a man aside as shoemaker or miller or carpenter. This early craftsman was an itinerant who traveled from household to household in search of a market for his services, as the scissors-grinder and umbrella-mender still do today. As time went on the craftsman set up a shop in town and expected the customer to come there to place his order. Since no work was done until the order was placed, there was never a surplus of goods to worry the trading craftsman. But while there was little of the speculative element in this custom-order business, it suffered from the disadvantage of alternating busy and dull seasons. Accordingly the craftsman began to anticipate future orders by making standard units of his product during the dull season and offering them for sale at a lower price in the retail shop that he conducted in connection with his higher-priced custom-order busi-

ness. It is this custom-order and retail shop business that the craftsmen of medieval towns were engaged in. As the number of crafts multiplied, the guild merchant, consisting of all the merchants of a town, proved unequal to controlling the economic life of the town. The masters of a given craft found they had more in common among themselves than they had with all the other merchants of the town belonging to many different crafts. The craft guilds that were formed gradually absorbed the functions of the guild merchant, which slowly disappeared. What the guild merchant had done in controlling the trade of the town as a whole the craft guilds, each composed of artisans belonging to a single craft, sought to do for their particular crafts. No one could engage in any craft except with the permission and under the regulations of the craft guilds. In the beginning membership requirements were liberal. Any competent workman could hope, after serving for some years as apprentice and journeyman, to be admitted to the guild of his trade as a master workman. Subsequently membership was much more restricted for the purpose of monopolizing a craft in a given town for a limited number of craftsmen.

The domestic system. The craft guilds which had been so powerful during the thirteenth, fourteenth, and fifteenth centuries began to wane during the latter part of the fifteenth and practically disappeared by the end of the sixteenth century. Internal dissensions and divisions destroyed the unity of their membership. The national government assumed many of their functions. But, most important of all, industry grew up outside their sphere of control. Artisans there had always been who were not members of the guilds, even at the height of guild domination, but these free-lance craftsmen became more numerous during the fifteenth and sixteenth centuries in spite of the efforts of the guilds, backed by town and national government, to suppress them, the increase being most marked in the rural districts. Some of these independent craftsmen were men whom their craft fraternity had failed "to pledge". Others were cut-price competitors of the guilds. Still others were non-conformists, who refused to abide by guild regulations of all sorts as to materials and methods. Being business rivals of the guild craftsmen, and socially not recognized by them, they naturally established

themselves in the country, and in rural villages rather than in the towns, which the guilds dominated. The industry which they conducted in their homes came to be known as the domestic system. Beginning in the sixteenth century, it was the prevailing economic system until the close of the eighteenth century, traces of it still remaining.

The "domestic system" has been so called to distinguish it from the present factory system, in which the work is no longer done at home. Home work was just as characteristic of the independent craftsman living on some manor and of the guild craftsman as it was of the artisan of the domestic system. But there was this important difference. The relatively few craftsmen of the manorial economy, which was largely agricultural, produced goods for home consumption on the manor. The master workmen of the guild period produced goods for the special customer or, in the retail shop stage, sold goods directly to the consumer. The artisans of the domestic system produced goods for unknown consumers. Situated in the country, they were at a disadvantage in marketing their products. Consequently a new group of economic functionaries arose, the merchant employers, whose specific task it was to provide the market opportunity. They soon not only marketed the finished goods but brought business orders to the artisans, supplied them with the raw materials which it was often difficult for the country artisans to obtain, and occasionally even furnished them with tools. Initiative in industry was taken by these merchant employers, who organized the scattered artisans into a producing system, the products of which the merchants owned and marketed. In the domestic system the functions of capitalistic employer and of workman are for the first time separated.

The industrial economy. When the changes associated with the industrial revolution of the eighteenth century came, involving the substitution of power-driven machinery for simple hand tools and the housing of these machines in factories rather than in the homes of the workers, it was the merchant-capitalist employers of the domestic system who became the "captains of industry". It was they who had the capital and credit with which to build the factories, install the new machines, buy the raw materials, advance the wages,

and hold the finished goods until they could be sold to advantage. Modern economic society has become industrialized; the economic methods and relations at first characteristic only of manufacturing have spread throughout our entire economic system, so that the present economic age is appropriately called the "age of industrialism". Men may idealize the economic past and long for the "good old days" when chivalry reigned and "knighthood was in flower", when artisans took great delight and pride in the product of their handicrafts and there was time to live as well as to work; the fact remains that today nearly two billions of people, incomparably the largest population the world has ever known, require the large-scale methods of modern industrialism if they are to live. Industrialism distinguishes our age from all others, and provides the structures, devices, and institutions which constitute the means for the satisfaction of our wants.

Some economic changes of the industrial period. What has happened during the last 150 years has more sweepingly transformed both the economic and political relations of men than the events of all the preceding centuries of human history. If Pericles, after living in the fifth century B.C. and contemplating the highest expression of Greek civilization, could have returned to earth in the early part of the eighteenth century and beheld the world as it then was, he would have found it less strikingly changed than Sir Isaac Newton, who closed his career early in the eighteenth century, would find it today. Previous to those marvelous changes that ushered in the modern economic era, the progress of the world had been steady but slow; since that time the changes have been so amazingly swift that the human mind has been almost bewildered in the attempt to grasp and measure their significance.

This emphasis upon the achievements of the last 150 years is not intended to detract from the wonderful accomplishments of preceding ages. It is impossible to exaggerate the importance of such great discoveries or inventions as the use of fire, the handling of the bow and arrow and spear, the weaving of cloth, the manufacture of pottery, the construction of boats, the use of metals, and the domestication of animals. All of these greatly aided man in getting a living and in slowly making his way from savagery to civilization. But

the progress of preceding ages is somewhat overshadowed by the vast changes of modern industrialism crowded into a comparatively short period of time, changes so kaleidoscopic in character that they have frequently and permanently altered many of the previous relations of men.

Foremost among the industrial changes that have swept over the world in this new era stands the use of power-driven machinery, often uncanny in its marvelous operations, which has replaced the simple tools of the hand laborer in manufacturing and is increasingly doing so in mining and in agriculture. Steam, electricity, and gasoline have almost relegated the faithful horse to oblivion and have reduced wind and water to subordinate positions as direct sources of power. Myriads of lights have converted night into day, enabling the wheels of industry ceaselessly to turn. No less wonderful have been the changes in transportation and communication. Fulton's "Clermont", triumphantly steaming up the Hudson in 1807, was so great an improvement on the sailing vessels of earlier centuries that in the newspapers of the day she was described as the new "water monster". What would our ancestors say if we could send them a motion-picture film (if that itself did not bewilder them) showing a replica of the 160-ton "Clermont" entering the harbor of New York, shortly followed by the "Leviathan", registering not 160 but 54,000 tons, and carrying on her numerous decks more than 14,000 American soldiers home from France? Improvements in transportation have been so amazing that the "Normandie", registering 79,000 tons, has been able to cross the Atlantic in about four and a half days; that the R-34 has taken Major Scott and his crew of thirty men back to England through the air in seventy-five hours—still a record; that Captain Alcock and Lieutenant Brown, pioneers of the air whom we have almost forgotten in our deserved adulation of Lindbergh and other more recent flyers, could literally lunch one day on one side of the Atlantic and breakfast the next day on the other side; and that Post and Gatty could make truth look stranger than fiction when they outdid "Around the World in Eighty Days" by accomplishing the feat in a little more than one tenth that time. A network of steam and electric railways and millions of automobiles furnish conveyance for those who still prefer

the solid land to rolling waves and unsubstantial air. The telegraph, telephone, and radio have controlled electricity with and without the use of wires and made it possible for people in the uttermost parts of the earth, day by day, to follow the activities of the world.

All of these marvelous changes in industry, transportation, and communication have helped to create a new economic world; a world in which individuals, communities, and nations specialize, produce on an enormous scale, and exchange their surpluses for the surplus products of others. Consequently, one of the most significant facts about the world today is that it is a world the parts of which are economically interdependent. The time was when communities and nations were isolated and accordingly had to be largely self-sufficient, but today communities and nations, whether they like it or not, find their physical and economic isolation gone. A new economic world has arisen in which distance and time have grown shorter and all parts have been more closely knit together. What has happened during the past 150 years has promoted the economic interdependence of the world.

Some political changes of the industrial period. Contemporaneous with these revolutionary economic changes there have been no less sweeping changes in the political relations of men. The tide of democracy steadily rose until it irresistibly swept everything before it. In 1776 our fathers, outraged by certain economic and political abuses, declared that for securing certain inalienable rights "Governments are instituted among men, deriving their just powers from the consent of the governed". Successful in the Revolution, they established our representative democracy. Unhappy conditions prevailing in France culminated in the great French Revolution with its insistence upon liberty, equality, fraternity. Although ending in the temporary restoration of the Bourbons, whom it had attacked in the beginning, the Revolution very largely abolished legalized class privileges and established in their stead the principles of democracy. England, too, though she fought the ideas of the French Revolution more persistently than any other power, gradually felt the stirrings of the new spirit. While still retaining the symbols and trappings of monarchy, with America and France she has become one of the world's great democracies. And the spirit that has found

expression in the political structures and life of England, France, and America has moved over all the peoples of the world. Wonderful has been the quickening of life it has produced. The great commonwealth of nations that we call the British Empire; the Latin peoples of South America; slumbering China, awaking to the glories of a new day but still unhappily menaced by dangers within and without; Russia, unchained and to the amazement of the world creating both a new economic and a new political order; Austria, until recently clinging to the shadow of the Holy Roman Empire, and hankering for its departed glories; Poland, revived as a republic though long a kingdom; Hohenzollern Germany and Bourbon Spain—all these and many others have felt the not-to-be-denied impulses of democracy. In some, these impulses have long since been coordinated into stable characters; in others, they are as yet so undisciplined that it is idle to predict the future national characters that will be based upon them. In spite of dictatorships like those of Hitler, Mussolini, and Stalin, what has happened during the past 150 years has promoted the political kinship of the world.

The rise of industrialism and the rise of democracy, or the transition from economic independence to economic interdependence, from political autocracy to political democracy, which is also a transition from the independence of the one to the interdependence of the many: these are the two most significant social developments of the past century and a half.

NATURE OF MODERN INDUSTRIALISM

The new industrialism that has so strikingly transformed the economic relations of men and that indirectly has contributed so much to the transformation of their political and social relations as well, needs first of all to be understood structurally, if its functioning, maladjustments, and possible readjustments are to become intelligible. Industrialism means the whole modern organization of productive activities. It is the successor of the self-sufficing household economy of early times, in which goods were produced within the household for consumption by its members; and of the commercial economy or handicraft system of later times, in which goods

were produced primarily for exchange in the local markets and fairs. If Pericles, proud of the world he knew 2,500 years ago, were to return to earth today, and if it fell to the lot of an economist to explain to him how the economic world today differs most distinctively from the economic world that Pericles knew, the story he would have to tell would certainly include a recital of how men have substituted power-driven machinery for simple hand tools; of how the factory has replaced the home workshop; of how the large-scale use of capital has put the capitalist into control of industry; of how men are free to compete with others in any economic activity for which they have the ability and means; of how production has become highly specialized; of how men characteristically produce for large general markets rather than for small local markets; of how much the greater part of all exchange transactions is done on a credit rather than on a money or barter basis; of how group action, on the part of both capitalists and laborers, characteristically prevails over individual action; and of how all this has resulted in an economic interdependence of groups, communities, and nations that is unique in the history of the world.

Machine industry. Most prominent among these features that distinguish modern industrialism from all preceding economic systems is the use of machines. Accordingly, our era has not inaptly been described by the term *machino*-facturing to differentiate it from the *manufacturing* of earlier times. For ages men produced what they did with the aid only of simple tools. It is difficult to draw a sharp line of demarcation between tools and machines. Karl Marx long ago pointed out that modern machinery consists of three parts: the motor mechanism, such as the steam-engine, which operates the whole; the transmitting mechanism, such as fly-wheels, shafting, and gearings of every kind, which regulates and distributes the motion; and the working machine.³ Tools are properly comparable with this "working" part of the machine. In the case of tools, man both directs their activity and supplies the energy with which they are worked. Machines may be driven by man, but the action of

³ *Capital*, translated from the third German edition by Samuel Moore and Edward Aveling (New York: D. Appleton and Company, 1899), p. 367.

the working part is determined by the construction of the machine itself. An ordinary pair of scissors is a tool; the muscles of the arm operate it, and the fingers of the hand guide its action. Electric cutters, cutting more than fifty thicknesses of cloth in a modern clothing factory, are machines; the power is supplied through an electric motor, and the action of the cutting blades is controlled by the mechanism itself. A carpenter's saw is a tool; the circular saw of a lumber mill is a machine. Tools are simple, machines are complex. Tools are directly guided and propelled by man; the action of machines is merely initiated by man, their course of action being determined by a series of mechanical devices through which the driving power is applied. The age of modern industrialism is the age of machines rather than of tools.

Transition from tools to machines. The transition from tools to machines and from muscular to mechanical power began in England during the latter half of the eighteenth century and has been in progress somewhere or other in the world ever since. It was the textile industry that witnessed the first great changes. As early as 1738 Kay's invention of the flying shuttle had enabled the weavers to double their output, with the result that it became difficult to obtain the necessary yarn. But Hargreaves' spinning jenny (1764-1767), Arkwright's roller spinning (1769)—inaptly called the "water-frame" because driven by water—and Crompton's spinning mule (1774-1779) combining in one machine the devices of Hargreaves and Arkwright, solved the problem. The ingenuity of these men supplied the weavers with yarn of superior quality and in quantity beyond the power of the hand weavers to use. Spinning had now left weaving far behind. But with the invention of Cartwright's power loom (1784-1787) and the application of Watt's steam-engine (1785) to the driving of the new textile machines, weaving caught up and the manufacturing of cotton cloth on a large scale really began. Whitney's cotton-gin (1792), which enabled one man to remove the seeds from a thousand pounds of cotton a day compared with the four or five pounds he could clean with the old hand-tool methods, ensured the manufacturers a plentiful supply of cotton. The substitution of power-driven machinery for simple hand tools,

which began in the textile industry, spread to all other industries with such rapidity and effected such fundamental changes that the period came to be known as the "industrial revolution".

For the driving of the new machines, heavy and cumbersome as they were, the old sources of power proved inadequate. But a rapid succession of inventions controlling the expansive force of steam and gas and the generation of electric current has furnished man with unlimited power to operate the machines of manufacturing, agriculture, and mining, and at dizzy speeds to send his engines across land, over seas, and through the skies. The age of modern industrialism is the age of steam and gas and electricity rather than of man- and horse- and wind-power.

Machine industry based on modern science. The great majority of the marvelous mechanical inventions of the past century and a half would have been impossible except for the rapid development during that time of experimental science. Prior to the development of modern science and the technology based upon it, inventions were usually either the result of accident or of laborious trial-and-error experimentation. But science has discovered many of the secrets of nature, and through knowledge of natural laws it has been able to harness natural forces to serve the needs of man. So modern science has revolutionized industry and continues to make it incomparably more dynamic than any other form of economic activity. Many of the largest industrial enterprises of our time, such as the General Electric Company, the American Telephone and Telegraph Company, and the United States Steel Corporation, maintain great scientific laboratories and spend huge sums for the services of engineers, chemists, physicists, geologists, other scientists, and technical experts for the purpose of discovering still better ways of producing goods.

Superior productivity of the machine. If it be true that the power-driven machine is the distinctive feature of modern industrialism, it is the unparalleled productiveness of machine industry which has most deeply affected our economic and social life. How great the increase in productiveness has been is evidenced by countless striking facts. An old-time cobbler considered himself efficient if he made one good pair of shoes in a day. The modern shoe-factory

operative tends a machine through which 1,200 shoes pass each day. The capacity of the old hand printing-press was limited by the skill and endurance of its operator. The largest modern newspaper press can turn out 300,000 eight-page papers in a single hour.

. . . The best flour mill in Athens at the time of Pericles produced only two barrels of flour in a day; one of the mills in Minneapolis produces enough to fill 17,000 barrels. In the early part of the last century a skilled workman could make in a day about thirty needles; at the end of the century a girl with the help of a machine could make in a day 500,000 needles. Ore vessels on the Great Lakes, 600 feet long, are loaded with 10,000 tons of ore, in twenty minutes, and the same cargo can be unloaded in three hours and twenty minutes by huge machines called clam-shell unloaders. The blacksmith once made nails by hand, now we poke the end of a long roll of wire into a machine, and it rapidly pulls in the wire and drops out nails by the keful.*

Facts such as these show us why our economic era has with a good deal of appropriateness been called the era of machine civilization. The machine more than anything else has made possible large-quantity production and low unit costs; it has greatly increased the production of wealth and brought about higher standards of living; it has robbed work of much of its back-breaking drudgery and, notwithstanding periods of unemployment, has greatly extended the economic opportunities open to all.

The factory system. The substitution of power-driven machinery for simple hand tools resulted in the replacement of the home workshop by the factory. For centuries the home had been the center of the family's economic activities. It had been common for the members of a family to be jointly engaged in their own home upon the goods, such as woolen cloth, which they were producing for the market. But modern industrialism has utterly changed the economic character of the home. If the activities of father, mother, and children at one time centered around a common hearth, that time is gone. If home and industry were once inseparable, so much does modern society disapprove any such connection that home industry is today described as sweat-shop industry. With the invention of the new power-driven machinery, the factory came and the city grew,

* Marshall and Lyon, *Our Economic Organization* (New York: The Macmillan Company, 1921), pp. 216-218; illustrations taken from U. S. Bureau of Education, *Lessons in Community and National Life*.

and industry left the home and has never since returned. Industrially, home today is but a shadow of its former self. For many people it is but a lodging-place. The American male is said to eat his morning and evening meals there, to sleep there, and occasionally to stay there on Sundays.

Factors influencing the establishment of the factory system. What has brought about the change? Among the more important factors that took industry from the home and established it in the factory was the character of the new machinery. Its size and weight were too great for the small homes and adjoining workshops of the artisans. What is more, the new machinery was power-driven; that necessitated locations in proximity to water-power or to easily available coal supplies. Power-driven machinery, the installation of still other machines for the generation or transmission of the necessary power, and the rapidity of motion of these substitutes for hands and feet were all such that especially constructed buildings for the housing of both machinery and workers became necessary. And still another factor must be mentioned. The new machinery was much too expensive for the artisans to buy, even had they been able to house it. For all of these reasons industry was established in the factory, where it is today. In the factory under one roof workers, machines, and materials were assembled, and under a single management goods were produced in such quantity that the artisans of the old régime were unable to compete with the new factory system. The large-scale methods and mass production of the factory system have brought about such a reduction of costs per unit of output that the independent artisans, except in unusual crafts, have been forced either to become "factory hands" (often little "head work" being required) or to do repair work on factory goods, together with such custom order work as a few fastidious customers enamored of the old handicraft days may supply. The machine and the factory distinguish modern economic society from all preceding forms of economic organization.

Capitalistic control and private property. Modern economic society is preëminently capitalistic. A capitalistic society, as ordinarily understood, is one in which the control over industry is in the hands of private property owners. The use of capital on the present colossal

scale is one of the most distinctive features of our time. No such use was made of capital in the self-sufficing household economy or even at the high tide of the commercial economy as is made today. Riches there were in abundance, but they were often idle fortunes. The conversion of surplus wealth into capital goods and the use of capital in the further production of wealth are marked developments of the industrial period. The typical great fortunes of today are not represented by the fine flocks and herds of a Jacob, or the vast land holdings of a Duke of Westminster, or even the commercial riches of such a family as the Medici or the Fuggers, but rather by fortunes made in such highly capitalized industries as oil, steel, railroads, motors, and mining by the Rockefellers, Carnegies, Vanderbilts, Fords, and Guggenheims of modern industrialism.

The capitalistic character of modern economic society is strikingly shown by the marked increase in the supply of active capital used in the United States during sixty years of its most rapid development. Note particularly the last column in the following table.⁵

QUANTITY OF ACTIVE CAPITAL IN THE UNITED STATES
(OUTLYING POSSESSIONS EXCLUDED)

<i>Census Year</i>	<i>Total Value of the Active Capital Supply in Millions of Dollars</i>	<i>Per Capita Value of Active Capital</i>	<i>Price Index</i>	<i>Index of Quantity of Capital per Capita</i>
1850	2,757	\$119	139.2	85
1860	5,900	188	141.3	133
1870	8,978	233	221.6	105
1880	13,636	272	132.4	205
1890	19,298	307	113.6	270
1900	24,783	326	101.7	321
1910	47,961	521	126.5	412

Allowing for necessary corrections on account of price changes, Dr. King's calculations show that by 1910 the quantity of capital per capita existing in the United States in 1850 had more than quadrupled. Not a little of the constantly growing prosperity of the Amer-

⁵ W. I. King, *The Wealth and Income of the People of the United States* (New York: The Macmillan Company, 1915), pp. 43-44, which see for source of data.

ican people has been due to this steady increase in our capital equipment.

How great the accumulations of capital are in our largest business enterprises is conspicuously shown by our "billion dollar" corporations. Modern business enterprise has characteristically taken form in the corporation (the nature of which will be explained in Chapter V). The capital of a corporation is primarily supplied by its owners, known as stockholders, and secondarily by its creditors, known as bondholders. The capital and surplus,⁶ including capital furnished by both stockholders and bondholders, of the American Telephone and Telegraph Company and its associated companies are nearly \$4,000,000,000; of the United States Steel Corporation, \$1,750,000,000; of the Southern Pacific Company, \$1,600,000,000; of the Pennsylvania Railroad, \$1,400,000,000; of the New York Central Railroad, \$1,400,000,000; and of the Standard Oil Company of New Jersey, \$1,400,000,000. Each of them has capital obligations in excess of one billion dollars, a sum quite beyond the comprehension of most people. In addition a number of corporations are in the "near billion" dollar class, including the Union Pacific Railroad and the General Motors Corporation, each with capital and surplus amounting to over \$900,000,000. These and many other industrial enterprises are so vast that they require the investment not only of the surplus furnished by a few very wealthy individuals, but the small savings of hundreds of thousands of people. The American Telephone and Telegraph Company, for instance, in its annual report for 1934 sets forth that it has 675,027 stockholders, and that the average stock holding is twenty-eight shares, each share having a par value of \$100. Modern capitalism, such examples show, is distinctly coöperative.

How does it happen that capitalists so generally are in control of our economic enterprises? The answer is not far to seek. Expensive power-driven machinery, costly factories, the lengthening of the process of production involving the purchase of vast quantities of raw materials and the advance of wages to laborers—all these

⁶ Figures are for 1931. Surplus, appropriated for specific purposes such as additions to property or for miscellaneous objects, is not included in the totals, though in some cases it would be proper to do so.

conspired to throw the control of industry into the hands of men who had some accumulated wealth or had the credit to obtain it. Given this initial start, they were able to profit by the fabulous productiveness of modern industry and, through the ownership of rapidly increasing capital, to consolidate their control over industry. Then too, during a time in which capital was relatively scarce and accordingly the limiting factor in production, they who had it were in a strategic position to dictate the terms of its use. Those terms were control over the investment, which meant capitalistic control over industry. Such capitalistic control, based upon the institution of private property, has passed from hand to hand through sale and inheritance and remains today one of the distinctive features of modern economic life.

Free enterprise and free competition. Closely related to private property in capital, as an outstanding characteristic of the present economic order, is freedom of private enterprise—and that implies freedom to compete. Henry Clay points out:

Property, that is, the exclusive use of wealth, is the prize offered by society to induce individuals to compete in producing wealth; freedom of enterprise is the device on which society relies to insure that no one shall acquire wealth without competition.⁷

What is meant by freedom of enterprise? There is perfect freedom of enterprise when any individual is legally at liberty to engage in any economic activity he chooses. In the main, men today are free to compete with others in any economic activity they choose, though choice is limited by ability and means. Men are free to engage in an old type of business, such as wagon-making, or to develop a new one, such as making automobiles. They are free to seek new markets for their finished goods and new supply sources for raw materials. They are free to buy and sell, or to refrain from buying and selling, whenever and wherever they please. They are free to come and to go in the pursuit of their business, as they see fit.

To the men of medieval times such freedom of private enterprise would have seemed preposterous. In those days everything was restricted. In the towns, trades and occupations were strictly con-

⁷ *Economics for the General Reader* (New York: The Macmillan Company, 1918), p. 357.

trolled by the guilds, which prescribed the conditions of admission, dictated the entire technique of production, and regulated the price of the product. In the country, most men were not free to work when they pleased for whoever would employ them. On the contrary many were serfs, bound to the service of a feudal lord and limited in their economic activities to certain holdings of land. What is more, government later minutely regulated trade for fiscal and military reasons, never hesitating to subordinate the interests of the individual to the interests of the state. The past century and a half has swept away most of these irksome and hampering restrictions and has substituted the régime of individual initiative and free enterprise.

Some limitations on free private enterprise still exist, however, and doubtless will always exist. Legal freedom to engage in any enterprise one chooses does not convey the economic power to do so. Lack of means effectively closes the door to many enterprises. Often, too, lack of means has precluded the higher education which might have increased the individual's range of choice. The government, too, has sometimes undertaken certain economic activities to the exclusion of private enterprise, the mail service being perhaps the most conspicuous example in our country. In some places the railways, telephone, and telegraph are operated, and water, light, and power service are furnished by the government. Government today also regulates many private enterprises. Rates of the public utilities just mentioned are strictly regulated where they are not operated by the government. Private individuals must be licensed to practise certain professions and occupations. Dealing in foods, drugs, or securities is subject to many restrictions. Industry must conform to many governmental regulations as to whom it shall employ and the conditions of their employment. But with all these modern restrictions, it is still true that never have individual initiative and private enterprise had greater scope than during the industrial period.

Free enterprise implies free competition. If one man is free to engage in a given enterprise, another is free to enter into competition with him. Throughout the industrial period society has encouraged free enterprise and has relied upon the competition of

many enterprises to protect its interests. There is competition for trade; accordingly the buyer has a choice to make as to the product he will take and the seller he will patronize. There is competition for goods; accordingly the seller has a choice to make as to disposing of his goods at once or of holding them for more acceptable prices. Should this force of competition fail to work reasonably well, it would endanger the whole system of free private enterprise.

Specialization, exchange, and interdependence. One of the most distinctive ways in which the modern economic world differs from the ancient and medieval is in the specialization which exists and the interdependence it has brought about. The modern producer, be he capitalist or laborer, is apt to be a specialist. Present-day specialization is of many kinds.

Specialization of trades and crafts. The most obvious and persistent form of specialization is seen in our trades and crafts. In the days when men led a self-sufficing economic life, producing what they consumed and consuming what they produced, there was no differentiation of labor. But the need of specialized services developed early and has grown steadily ever since. Speaking of this specialization of crafts, Professor F. W. Taussig says:

This dates far back into antiquity. The familiar crafts are of very old standing. The extent to which their names have been adopted as surnames shows how, among modern peoples, occupations were separated in a comparatively simple state of society, such as that of the Middle Ages, when patronymics were in process of formation. The Carpenters, Masons, Smiths, Weavers, Drapers, Tailors, Dyers, Saddlers, Shoemakers, Millers, Bakers, Coopers, and such other common surnames indicate what sort of division of labor was maintained for hundreds of years with comparatively little change.⁸

Such specialization still exists. Although some crafts have declined in importance and others have disappeared altogether, many new ones have taken their places.

Specialization of functions within industrial units. The most distinctive specialization of our day, however, is not this time-honored separation into trades or crafts but the specialization of functions within industrial units. Many of the crafts of the Middle Ages,

⁸ *Principles of Economics*, 3d ed. (New York: The Macmillan Company, 1921), I, 31.

such as those of the tailor and cobbler, have grown into gigantic industries like our modern clothing and shoe manufacturing. In the clothing industry, if we may choose an industry in which the transition to the factory system is now going on, the making of clothing has been split up into many distinct processes, such as sponging, shrinking, finishing, shearing, pressing, cutting, basting, stitching, and many more, and usually these processes are subdivided into detailed operations, such as the fifty or more distinct cutting operations involved in the making of a man's suit. Highly specialized workers and machines are "detailed" for the performance of these operations. This is what is usually meant by our modern technical division of labor. In a shoe factory, for instance, about 100 workers, each performing some highly specialized task, must coöperate today in the making of each pair of shoes. The making of a plain standard coat in one of the Hart, Schaffner, and Marx factories requires the coöperation of eighty-seven different workers. In a meat-packing plant, such as Armour's or Swift's, from 200 to 250 men are needed to convert a bullock into dressed meat. "The animal has been surveyed and laid off like a map", says John R. Commons, and "skill has become specialized to fit the anatomy".⁹

"In a leading automobile plant", writes another reporter, "the chassis assembly line moves at six feet per minute and has forty-five operations. The first man puts on the mudguard brackets, the motor arrives in the tenth stage, and so on. Some men do only one or two small operations. The man who places a part does not fasten it; the man who puts in a bolt does not put on the nut; the man who puts on the nut does not tighten it. On operation No. 34 the motor gets its gas, having received its oil earlier. At station No. 44 the radiator is filled with water, and at No. 45 a button is pressed, a pair of rollers in the floor under the rear wheels begins to revolve rapidly, the wheels spin, the engine turns over, and the car glides away under its own power with a driver at the wheel."¹⁰

Specialization of functions within a modern industrial plant is

⁹ "Labor Conditions in Slaughtering and Meat Packing", in *Trade Unionism and Labor Problems*, First Series (Boston: Ginn and Company, 1905), p. 224.

¹⁰ W. J. Showalter, "The Automobile Industry", *National Geographic Magazine*, XLIV (1923), 390.

characteristic not only of labor, but also of capital. Highly specialized labor usually means highly specialized machines. Indeed to a large extent the introduction of specialized equipment has been attributable to the division of labor. Whenever industrial processes have been divided into routine operations, and whenever there has been need for the constant unvarying repetition of a single operation a great many times, human inventiveness has sooner or later produced a machine to do the work. Such routine tasks are performed better by tireless machines than by periodically tired workers. So specialized are many machines and so complex the operations they perform that many a visitor to a modern woolen mill, locomotive works, or watch factory, for example, receives a weird impression from the magic operations and results of machine industry. Many of the machines seem to possess an extraordinarily high degree of intelligence—which is true enough when we think of the intelligence which their inventors, designers, and makers have expressed in them.

Management, too, no less than labor and capital, is specialized in modern large-scale industry. Industries such as the refining of oil, the production of steel, and the making of automobiles present tremendously intricate management problems, all the way from the assembling of the raw materials to the marketing of the finished product. Specialization in management has been necessary to achieve efficiency. The general manager of a large manufacturing business is today the person who coordinates the managerial functions of many specialists. Working under his direction are many subordinates in charge of various departments of the enterprise, such as the production manager in charge of output; the purchasing agent in charge of procuring supplies and equipment; the employment manager in charge of labor; the sales manager with advertising assistants in charge of the marketing of the product; the treasurer, auditor, and accountant, all concerned with the financial administration of the enterprise.

Territorial specialization. The extent to which specialization has been carried in the modern economic world is strikingly shown in the industrial specialization of regions. Not only individuals, in the selection of their occupations; nor industries, in the division

of their work into many functions and operations; but also geographic regions, in the industries they develop, have learned to specialize. Much of this territorial specialization is of course directly attributable to the natural resources of the region, such as the agricultural industries of the Middle West, the coal-mining of Pennsylvania, the cotton-growing of the South, the citrus fruit industry of Florida and California. But some forms of trade and of manufacturing industry also have become concentrated in certain localities. Conspicuous examples are furnished by the prominence of the automobile industry in Detroit and southern Michigan; of automobile tires in Akron; of slaughtering and meat-packing in Chicago; of wheat-milling in Minneapolis; of brass and bronze products, clocks, fire-arms and ammunition in Connecticut; of collars and cuffs in Troy, New York; of shoes in Massachusetts; of wines in California; of beer in Milwaukee and St. Louis. Such territorial specialization has been made possible through the development of modern means of transportation and communication; without them there could have been neither a steady supply of raw materials nor a steady market for finished products. The factors responsible for this territorial specialization vary with different industries and localities. Among the more common have been the proximity of cheap power, supplied by water or coal; availability of raw materials and necessary grades of labor; and accessibility to markets.

Interdependence. The specialization of individuals and communities, so characteristic of modern industrialism, has brought about an interdependence that is unique in the world's history. The object of specialization is greater productivity; the price paid for it is dependence upon others. Specialization always implies a high degree of social organization. It is impossible for individuals and communities to specialize except as they are assured a fairly steady market for their special products and a fairly constant supply of the goods they need. This has been made possible by our modern exchange system, in which, through the instrumentality of money and credit, the commodities and services of one group of specialists are exchanged for those of another. Man is no longer a jack-of-all-trades but a specialist, and as such he is dependent upon others for most of the necessities and comforts of life.

Speculative production. Modern industrialism is speculative. All over the world production is being carried on in anticipation of future demand. Millions of scattered producers are estimating this demand as best they can. If their estimates are correct, their enterprise prospers; if not, it suffers loss. Men are growing wheat and cotton, raising cattle and sheep, digging coal and iron, manufacturing clothing and machinery, all in the hope that they will find a ready and constant future market for their products. In some cases materials are produced years in advance of the time when they will be sold as finished goods. This lengthening of the process of production, removing some groups of specialists much further from the final market for finished goods than was once the case, has greatly increased the elements of uncertainty and risk in business enterprise. It has made production more speculative. Manufactured goods, for instance, may pass from maker to wholesaler, from wholesaler to jobber, from jobber to retailer, and from retailer to consumer. It is the consumer that prompts the activities of all the rest, but those activities in very large part are carried on in anticipation of the consumer's wants. Should there be miscalculation anywhere, someone is bound to suffer loss.

There was a time when production was typically for the special-order customer. Goods passed directly from the hands of the maker into the hands of the consumer. But modern industrialism has replaced custom production for small local markets with factory production for large general markets. With improvements in transportation and communication the marketing area has constantly grown larger, until today many industries supply a world market. The wider the market for goods, the safer is it to specialize and the further can specialization be carried. But the development of groups of specialists, all estimating the future demands of other groups, has brought about an interdependence of groups and has given to modern production much of its speculative character.

Credit economy. A very striking characteristic of modern economic society is the large part which credit plays. By "credit" in this connection may be understood a person's ability to obtain something of value in return for the promise of a future equivalent. Credit is an important factor in modern production. As has just been

shown, much of our production is conducted on an estimate of future demand. Usually, too, there must be a considerable lapse of time between the original outlay for land, buildings, machinery, and other equipment, as well as for the ordinary expenses of conducting business, and the eventual receipt of income to cover such expenditures. Customers are not usually either able or willing to pay in advance for the goods they want. Laborers are in no position to wait very long for their wages. Many who supply materials are in almost equally necessitous circumstances. And yet someone must be able to invest capital in this time-consuming process of production, to meet all current expenses, and to wait to the end for his own compensation. This is peculiarly the function of the owners of a business, and from them, it is true, comes a considerable part of the funds out of which the permanent investments are made and the current expenses are met. Nevertheless almost every large business is also a borrower, in part for long-term investment and in part for current operating needs. A very large part of modern productive enterprise is based on the credit furnished by banks and other financial institutions.

Credit is also a most important factor in exchange. By far the larger part of all exchange transactions is done on a credit basis rather than by the direct use of money. Barter, the exchange of goods for goods without the use of money, characterized primitive societies and has been revived among some modern peoples where faith in money has vanished and the confidence essential to a credit system is lacking. Goods today are to a large extent bought and sold on credit. Sometimes the customer has them charged instead of paying cash. Even when he pays for them at once, the chances are that he will pay for them by means of a check or draft, either of which is a credit instrument. Often payment is made by drawing upon borrowed funds, the credit, perhaps, being furnished by a bank. In all the intricate financial processes of modern production and exchange, credit enters.

One very obvious and far-reaching effect of our credit economy is the financial interdependence it creates. What specialization effects in the field of production, credit effects in the field of exchange—the parts of the system become so interdependent that they are

incapable of functioning alone. If men did not borrow to do business or to buy goods, there would be fewer business failures. But men do borrow, constantly and largely. The result is that the solvency of one depends upon the solvency of others; his ability to pay, upon his ability to collect. The inability of important groups to pay their obligations promptly, such as occurred during the depression beginning in 1929, or even the failure of some important single financial institution, affects the solvency and credit of countless others. The almost universal use of credit in this country is the intangible tie that binds us into a business unity and that makes every part of the business community keenly sensitive to the improper functioning of any other part.

Prevalence of group action. Finally it must be pointed out that modern industrialism has led to the substitution to a great extent of group action for individual action. It is impossible correctly to understand the present industrial system without understanding that the group today holds the place held by the individual 150 years ago. Industry has become so much more complex than it was that individual effort counts for very little except as it takes place in coöperation with others. Employers have come to recognize this fact, and huge corporations and other industrial combinations have been the result. Laborers have come to recognize this fact, and labor organizations have been the result. The substitution of corporate for individual ownership of industry, of organized labor for individual labor, of group initiative and responsibility for individual initiative and responsibility, furnishes the clue to many of the present persistent problems of economic society.

CHAPTER V

THE BUSINESS ORGANIZATION OF PRODUCTION

THE NATURE OF BUSINESS

Since almost every productive activity is designed to yield income, it follows that almost every form of productive activity has its business side. Business is primarily acquisitive. This is not to imply that business is not productive, for almost all acquisitive enterprises are also productive. But certainly the quest for gain is the essence of business. Business men are engaged in selling goods or the rights to use goods in the expectation that they will gain by these transactions. Good business men understand, in times of depression as well as of prosperity, how to dispose of their goods to advantage. Many good producers are poor business men. This has notoriously been true of large numbers of farmers. No matter how excellent a farmer may be in the raising of wheat or of cattle, unless he has learned how and when to market his products to advantage he will have to suffer a loss on his operations which may drive him from the productive field altogether. Many small shopkeepers do not really know what it costs them to do business, and consequently they often fail. Incidentally, it may be said, men who fail often are sometimes shrewd business men, whatever may be said of their morals. Many professional men are lamentably weak in their business activities, however excellent they may be in their professional work. Some men naturally have "an eye to business", others, in accordance with an old Chinese proverb, find that "It is easy to open a shop but hard to keep it open."

There are three important and widely prevalent forms of business organization: the sole proprietorship, the partnership, and the corporation. Of these the first two have been most numerous, but the third is now most distinctive of the modern business world. There are still other forms, but they are of minor importance and illustrate no essentially different principles of business organization.

THE SOLE PROPRIETORSHIP

The sole proprietorship is the primary form of business organization from which all others have developed. It is a business owned and controlled by one person. In its earliest stages all the functions of the business enterprise were performed by the owner. The sole proprietorship was the prevailing type of business organization in the Middle Ages; the merchants and the craftsmen of those days, though organized into guilds, were mostly sole proprietors. It is still the most frequently found type of business organization in this country. Almost 57 per cent of the farms of the United States, according to the census of 1930, were owned and operated by sole proprietors.¹ Most repair shops, small retail businesses, and professional activities are conducted by sole proprietors. Sole proprietorships are not necessarily small businesses. The Wanamaker Stores of New York and Philadelphia are an outstanding example of a sole proprietorship which grew to be one of the two or three largest businesses of its kind in the world. The corporate form was not adopted until 1907 and 1909, long after this preëminent position was attained.

Advantages. In considering why a given business should be organized in one way rather than another, it is necessary to examine the advantages and disadvantages of the various types of business organization. What distinctive advantages does the sole proprietorship have? In no other business unit are financial interest, control, and responsibility so fully vested in a single person. Such combination of ownership and management in a single person is conducive to business efficiency, for no one is more vitally interested in the successful management of a business than the owner. Ownership directly stimulates prudent management, for it is the owner who either makes a profit or sustains a loss. A second advantage is furnished by the ease with which such a business can be organized and dissolved. No articles of agreement are necessary as in a partnership, and no charter is required as in a corporation. The business begins and ends at the pleasure of the owner.

¹ *Fifteenth Census of the United States* (1930), Agriculture, General Statistics, Summary for the United States 1929 & 1930, p. 10.

Disadvantages. But there are three important disadvantages. The first is limitation of capital to whatever the owner can furnish or has the credit to borrow. This may be entirely adequate for many enterprises, but most growing businesses sooner or later need additional capital, and this need may strain the resources and credit of the proprietor beyond the breaking point. The second is unlimited personal liability for the financial obligations of the business. Whoever goes into business for himself risks all that he has. The law does not permit a man to segregate his private property, risking some in the enterprise of which he is the sole proprietor and safeguarding the rest. In the event of the failure of the business, all of his property, barring certain small exemptions stipulated in our federal and State bankruptcy laws, whether invested in the business or not, may be taken in the satisfaction of the claims against the bankrupt business. The third is limitation of management to the managerial skill supplied by the owner or to the managerial ability that he can afford to hire. High-class managerial ability, however, is so much in demand that most sole proprietors cannot pay the price necessary to obtain it; and what is more, many men of real executive ability either prefer to go into business for themselves or at least to become associated with a business in which they can acquire some financial interest. The disadvantages of the sole proprietorship are such that it is usually restricted to small-scale enterprises for which the capital, credit, and managerial ability of the owner are sufficient.

THE PARTNERSHIP

Nature. The partnership as a form of business organization is an association of two or more individuals who are severally and jointly responsible for the enterprise. It substitutes a group of persons for an individual as the joint owners and managers of a common enterprise. The partners may have whatever agreements they please among themselves. Some may be "general" partners, having full voice in the management of the business, as well as full liability for its obligations; others may be "silent" or "sleeping" partners, their participation being restricted to sharing the gains and losses. The partners may contribute very unequally to the capital invested in

the enterprise and may share the income very unevenly. Whatever the valid agreements binding among themselves, every general partner in an ordinary partnership is personally liable for all the obligations of the partnership to outsiders. The laws of some States and countries recognize partnerships in which there is limited liability, but such partnerships are not much in vogue in this country because almost all their purposes can be better achieved by corporations. A partnership is not a legal entity, that is, a being having all the rights and duties of a person before the law. Legal action must always be brought by and against the partners as individuals. In the business world, on the other hand, the partnership operates as a single unit.

Advantages. The partnership, like the sole proprietorship, combines ownership and management in the persons of those most directly interested in the business. It is accordingly well adapted to enterprises in which the personal efforts or services of the owners are the most important factor. It is a common form of business organization among professional men, such as lawyers, physicians, consulting engineers, building contractors, and accountants, and is also to be found in many moderate-sized mercantile and manufacturing establishments. There is in the partnership a direct correlation between effort and income, which spurs the owners on to give to their common enterprise the best management they can. Like the sole proprietorship, too, the partnership is easily established. Unlike the sole proprietorship, the partnership is not limited in its command over managerial ability. Young men with business brains can usually be found when they are needed, and membership in the firm generally proves attractive to them. There is usually sufficient elasticity in the contractual relations of the partners themselves to provide an acceptable place for whatever type of man is needed. The partnership is also relatively free from State regulations, which is an advantage that appeals particularly in certain types of business.

Disadvantages. Limitation of capital, and consequently unadaptability to the largest enterprises, is a disadvantage of the partnership no less than of the sole proprietorship. The relations of business partners are highly personal. Every member of a partnership must be acceptable to all the rest. A man may have the capital

needed by the growing business of a partnership, but if in ability and character he is *persona non grata* to the present partners, his admission to the partnership is inadvisable, if not impossible. On the other hand, a man may be most acceptable, but if he lacks capital and it is capital that the partnership needs, his addition to the firm would serve no useful purpose. The fact is, if a partnership needs new capital beyond the ability of the partners themselves to furnish or to borrow, new partners must be found who can supply the capital and at the same time prove personally acceptable. Such necessity is apt to unfit the partnership form of business organization for the largest enterprises.

The disadvantage of unlimited personal liability is even greater in the partnership than it is in the sole proprietorship. If an individual owner comes to grief, his misfortune is at least due to his own lack of ability or mistakes in judgment. A general partner, on the other hand, is personally liable for all the business blunders of his associates. It often happens that some of the members of a partnership have private assets in addition to what they have invested in the firm, while other partners have none. If the partnership should fail, such private assets can be taken in settling the debts of the partnership. Choosing a business partner, like choosing a partner in matrimony, is a serious undertaking. Both partnerships are "for richer, for poorer, for better, for worse". But while a man cannot legally have more than one wife (at least at a time), there is no limit to the number of his business partners, and since the business indiscretion of any one of his associates may jeopardize his private funds, his personal liability is correspondingly greater.

A third disadvantage of the partnership compared with the corporation is its instability. The highly personal character of the partnership is responsible for this. The death of a partner, the insolvency of a partner in private business not connected with the partnership, the withdrawal of an old partner, or the admission of a new one may dissolve the partnership unless an agreement satisfactory to all concerned can be reached.

Such disadvantages obviously greatly restrict the use of the partnership form of business organization, practically limiting it to enterprises in which the personal services of the owners are a necessary

and preponderant element. Conspicuous examples of partnerships are furnished by J. P. Morgan and Company, a powerful New York banking firm; Dillon, Read and Company, one of the country's leading investment brokers; and Price, Waterhouse and Company, a prominent firm of accountants. Marshall Field and Company of Chicago, conducting the largest and one of the finest and most successful department stores in the world, was a partnership from 1865 to 1901. The company was organized as a partnership in 1865 under the name of Field, Palmer, and Leiter and was not incorporated until 1901. As a form of business organization in the United States, the partnership is declining in relative importance.

THE CORPORATION

Nature. A business corporation is an association of individuals known as stockholders, sanctioned by government and empowered by charter, through a board of directors and under a corporate name, to act as one person in the conduct of a specified business. A corporation is a legal person entirely separate from its members—an artificial person created by the state. In carrying on the enterprise for which it was created, a corporation may buy and sell property, borrow and lend money, enter into contractual relations, sue if necessary and be sued if someone has cause for action, all in its own corporate name and capacity, without in any way involving its officers or stockholders as individuals. According to their chief purpose corporations are of two types: "non-stock" corporations, which are not conducted for private gain; and business corporations, which are conducted for the private profit of their stockholders. Municipal governments and other political subdivisions of the state, educational institutions, scientific societies, religious bodies, and charitable institutions are usually chartered as non-stock corporations. Business corporations organized for profit prevail in the fields of large-scale manufacturing and merchandising, lumbering and mining, transportation and other public utilities, and banking and insurance.

Importance of corporations. Business corporations first developed in Europe during the sixteenth century, and became fairly com-

mon during what is sometimes called the "business revolution" of the seventeenth century. They were long in disrepute because so often used for fraudulent purposes. Today, however, the corporation is the world's leading form of business organization. Its growth in the United States has been most rapid during the past century. Dun and Bradstreet, Inc. (which is a commercial agency furnishing the credit rating of every business in this country), in 1932 listed over 2,000,000 business enterprises. Of this number about 25 per cent were corporations. The United States Internal Revenue Department in 1930 reported that 498,110 corporations had filed the returns required of all corporations under the corporation income tax law. While these 498,110 corporations do not constitute 25 per cent of the business enterprises of the country, they include all the largest enterprises and supply more than one half of the total value annually produced by American enterprise. The Fifteenth United States Census (1930) shows that in 1929 corporation-owned plants produced 95.7 per cent of the country's mineral output and 92.1 per cent of our manufactures.² Practically all of our lumber and oil, electric power and light, and railway, telephone, and telegraph service are supplied and controlled by corporations. Large department stores and chain-stores, requiring huge sums of capital, make the corporation's further invasion of the field of merchandising inevitable. Only in agriculture and professional service has the corporation failed to make much headway.

The importance of the corporation in our modern economic life is evidenced not only by the large percentage of the nation's annual income produced in corporation-owned plants, but also by the large and constantly growing number of people who own the stocks and bonds of corporations. A recent survey of fifty prominent industrial corporations showed the aggregate number of their stockholders alone, not to mention their bondholders, to be in excess of 1,000,000. Even after making allowance for numerous duplications, it is obvious that the number of different individuals holding the stocks or bonds of the nearly 500,000 corporations in the United States is exceedingly large. There is a distinct movement away from the

² *Fifteenth Census of the United States* (1930), Mines and Quarries, p. 14; Manufactures, I, 94.

"close" corporation, the stock of which is held by a few persons, and toward the "open" corporation, the stock of which is freely bought and sold on the stock-exchanges of the country. Armour and Company, the country's largest meat-packing company, was a very "close" corporation, indeed a strictly family affair, for nearly fifty years after its founding in 1870. It was not until 1918 that its stock was even listed on a stock-exchange and a public market thereby provided for the corporation's securities. The American Telephone and Telegraph Company is at present the most "open" corporation in the United States, in the sense that it has the widest distribution of stock. At the close of 1934 it had 675,027 stockholders. Of the total stockholders over one half held only from one to ten shares each. Fifty-six per cent were women. No stockholder owned as much as 1 per cent of the total stock. The average number of shares held was twenty-eight. The United States Steel Corporation stands next to the American Telephone and Telegraph Company in wide distribution of its shares of stock. In 1934 it had 239,167 registered stockholders. While the number of individuals owning the stocks and bonds of corporations is very large, indirectly an even larger number of persons is interested, because among the owners of the securities of corporations are included many insurance companies and financial institutions, which are themselves the custodians of the savings of many people.

How corporations are established. The establishment of corporations is today largely a matter of routine. It no longer requires a special act of a State legislature, for every State has now provided for incorporation under general corporation laws. Any group of persons (the minimum number, usually three or five, being specified by law) who have decided to form a corporation may submit articles of organization to the secretary of state or other State officer designated to receive them, and ask permission to incorporate. As soon as the application has been approved and filed, the charter of the corporation is granted.

The chartering of a corporation by any State does not *ipso facto* give the corporation any right to do business elsewhere. As a matter of fact, however, many corporations do most and some do practically all of their business outside the State granting them a charter.

In practice there is "interstate and international comity" which permits corporations that are "foreign" to a given State nevertheless to do business within that State. As a consequence many corporations have found it to their advantage to incorporate in States the laws and regulations of which pertaining to corporations are liberal. New Jersey, until the revision of its corporation laws in 1913, was a prime favorite, largely because the State combined lenient laws with proximity to the financial center of the country. Delaware is a much favored corporation home today; indeed this little State, with only a few hundred thousand people, has not inaptly been called the country's "corporation bargain counter" because it has issued the most liberal charters in exchange for franchise taxes. The legal domicile of a corporation in a State may consist of nothing more than a so-called "principal business office" maintained in the quarters of some trust company. Trust companies in Jersey City and Wilmington, for example, are the legal residences of hundreds of corporations. Here legal papers may be served and the annual meeting may be held, but of course the real business of the corporation is conducted elsewhere. It is quite possible and sometimes very desirable for a State to require conformity to its own standards on the part of so-called "foreign corporations". The State of Wisconsin did this to the advantage of all concerned after many irregularities had been discovered in the practices of insurance companies during the period 1905-1907. For a time more than a score of insurance companies withdrew from the State, but gradually all the big companies returned.

Many businesses organized as corporations make it a practice to set that fact forth in their legal names. Sometimes the word "corporation" itself appears, as in the name of The United States Steel Corporation. More frequently the abbreviation "Inc.", (meaning "incorporated") is used, as in Halsey, Stuart, and Company, Inc. The British use the abbreviation "Ltd." (limited), as in The Macmillan Company, Ltd.; the Germans often add the letters "G. m. b. H." to the name of a corporation, the letters standing for *Gesellschaft mit beschränkter Haftung*; the French designation for corporation is *société anonyme*, but as a rule neither the term itself

nor an abbreviation appears in the name of the business so organized.

The government of a corporation. In form the government of a corporation is a representative democracy; in substance it is often a self-perpetuating autocracy. The stockholders of a corporation usually have the right to vote, but voting may be restricted to a single class of stockholders. A voting stockholder casts as many votes as he holds shares of stock. Voting takes place at the annual or special meetings of stockholders. Not infrequently the larger the corporation, and the more widely scattered its stockholders, the briefer and more perfunctory is the meeting. In such corporations the overwhelming majority of the stockholders are conspicuous by their absence. They may, however, be represented by proxies, if they have not been too indifferent to execute proxy certificates. A small room in Hoboken, New Jersey, is large enough to accommodate all of the more than 200,000 voting stockholders of the United States Steel Corporation who care to attend the annual meeting. At the 1923 meeting Mr. Gary, chairman of the United States Steel Corporation, said:

I have attended and presided over every single stockholders' meeting since this corporation was organized, and I have voted the majority of votes of the corporation at every meeting since the first two or three, when I was not a member of the proxy committee.³

This statement strikingly shows how prone stockholders are to delegate their rights, nothing else to be sure being feasible for the many stockholders living at a considerable distance from the corporation's principal business office. The result is that power becomes concentrated in the hands of a very few men. Corporations the stock of which is widely distributed, while retaining the outward form of representative government, are autocracies in fact. Those in control of the corporation may never abuse the confidence placed in them; indeed they may prove benevolent autocrats in watching over the interests of minority stockholders and others; but the fact remains that, through the indifference of stockholders or their inability to

³ Quoted from a pamphlet issued by the United States Steel Corporation. The corporation was organized in its present form in 1901.

coöperate, a comparatively small fraction of the total stock often gives control over the affairs of the corporation.

The election of a board of directors, supposed to represent them, is usually the most important business in which the stockholders, in person or by proxy, participate at the annual meeting. This done, the average minority stockholder pursues a policy of "watchful waiting" for dividends which he hopes efficient management will be able to earn and the board of directors see fit to declare. The board of directors is first of all the representative assembly of a corporation, but in addition to legislative functions it also exercises judicial and executive powers. It is the ultimate source of authority in the management of the corporation. It determines fiscal and other policies, declares or "passes" dividends, and elects the active officers of the corporation. The president, vice-president, secretary, treasurer, or such officers as the corporation may have, as well as the executive and finance committees, are all responsible to the board of directors. General and department managers, such as production, sales, personnel, purchasing, financial, and accounting managers, if they are needed, may be appointed by the board or the officer to whom such subordinate officials are directly responsible. For years it has been common for many successful business men to be members of scores of boards of directors, but during the past decade there has been a noticeable decrease in the number of directorates on which such men serve. Since busy men who serve on so many boards of directors cannot possibly keep thoroughly informed concerning all of them, it not infrequently happens that the actual direction of the affairs of a corporation is assumed by some one person, such as an energetic chairman of the board or president of the corporation, the board largely restricting itself to the criticism or approval of his actions and policies. In form, then, the government of corporations is democratic; in practice it is often oligarchic or autocratic.

Advantages of the corporate form of business organization. The phenomenal growth in the number and importance of corporations in the United States during the past century would not have occurred except for distinct advantages which the corporate form of business organization has to offer. What are these advan-

tages? More than any other form of business organization the corporation is in a position to command whatever capital is needed for the largest enterprises. The steady industrialization of economic society during the past century and a half and the extensive introduction of large-scale methods have necessitated the accumulation and use of vast amounts of capital. The corporate form of business enterprise, the capital of which can be split up into small unit shares, is sufficiently flexible to use the fifty or hundred dollars of a person who has little to invest as well as the millions of a multimillionaire. The pooling of the funds of thousands of investors, large and small, makes the corporation equal to the financial challenge of any socially necessary undertaking.

What appeals to the prospective investor in the stock of a corporation is the fact that his liability for the obligations of the corporation is limited to the par value of the stock he holds, except in the case of most state banks, where the law specifies that his liability shall be double the face or par value of his stock. This advantage of limited liability which the corporation has over the sole proprietorship and the partnership is the only condition on which the investor with small means can possibly afford to become a minority stockholder. The possible failure of the corporation, through no fault of his own, might otherwise wipe out his entire assets. It is the limited liability which it can promise each stockholder that helps to give the corporation control over practically unlimited amounts of capital.

A third advantage of the corporate form of business enterprise is its stability. While composed of individuals, its life is independent of the personal fortunes of individual stockholders. The retirement or insolvency of the average stockholder means little or nothing to a corporation. The death of a prominent stockholder and officer like James J. Hill, who had been active in the direction of the Great Northern Railroad and heavily interested financially in the Northern Pacific and the Chicago, Burlington, and Quincy, while a great loss to these railroads, did not in any way affect their permanency. The life of a corporation is limited only by the State granting the charter; and while few States today charter corporations in perpetuity, the renewal provisions are so liberal that most corpora-

tions enjoy an indeterminate existence. Courts, however, may terminate the life of a corporation for violation of law; creditors may force it into bankruptcy or effect a reorganization; and the stockholders themselves may vote to dissolve the corporation.

Investment in corporate securities is further attractive because of the perfect freedom and relative ease with which such securities can be transferred from one person to another. They can be freely transferred because the average stockholder's relation to the business of the corporation of which he is part owner is highly impersonal. They can be easily sold because the stock-exchanges furnish a fairly constant market for the securities of the country's most important corporations.

A fifth advantage of the corporation is its freedom in procuring the most efficient management obtainable. As a corporation grows in size, ownership and management tend to diverge. While the largest stockholders may serve as directors and officers of the corporation, the active management of the various departments of the operating organization, which produces the commodities or services of the corporation, is likely to be in the hands of managerial experts. These specialists in management may or may not be members of the corporation, although they frequently acquire some financial interest in it. In the partnership, on the other hand, the partners themselves usually fill the most important managerial positions, which, for reasons already cited, greatly limits the range of choice.

Disadvantages of the corporate form of business organization. There are few insurmountable disadvantages, from the standpoint of the stockholder, in the corporate form of business organization. The rapid growth in the number of corporations, including almost all the largest enterprises, is sufficient evidence of this. Perhaps the greatest danger lurks in the possibility that hired managers may not feel the spur that owners do, or at least not feel it in the same degree. Much depends upon the type of men employed, the rewards offered them, and the opportunities afforded them of acquiring some financial interest in the business for themselves. It is unquestionably true, however, that "absentee capitalism", the separation of ownership from control of capital, removes a check on inefficiency and an incentive to enterprise which the owner-manager has.

What is more, the corporation furnishes the opportunity for such concentration of control that exploitation of minority stockholders is relatively easy if directors and officers prove unscrupulous. While many corporation officials today regard themselves as virtual trustees of the interests of stockholders, abuses of power have been much too common in the past. Among such violations of trust have been the payment of exorbitant salaries to officers; profiting on the part of officers by the purchase or sale of securities through the possession of information temporarily withheld from the rest of the stockholders; and their committing the corporation to contracts in which directors or officers had a private interest. While stockholders can seek relief through the courts, most questions of internal corporation management are beyond the province of the courts. As a New York court decision has substantially expressed it, a board of directors may be compelled to act honestly, but not wisely.

A third fact, which many regard as a disadvantage of the corporate form of business organization, is governmental supervision and control. Numerous reports are required by local and federal governments; many regulations are imposed governing the operation of corporations; and increasingly corporations have become subject to heavy taxation. The exactions of government, and the fear of what the future may bring, have deterred some businesses, notably financial concerns, from incorporating.

From the social rather than the investor's point of view, it may be remarked in passing that corporations have the disadvantage of being rather impersonal in their relations to the public. While corporations are persons before the law, and while their affairs are administered by men and women, there is some ground for the widespread feeling that corporations are "soulless" beings. The average stockholder's relation to the corporation of which he is a part owner is highly impersonal. He is apt to be ignorant of the corporation's dealings with its workers, customers, and the general public. While as an individual he might emphatically disapprove of certain corporation practices, his ignorance of the situation makes his private code of morals of no particular help in the development of corporate morality. In practice he is apt to be indifferent to everything but dividends, which he expects good management to earn. The

managing officers, on the other hand, who represent the owners of the business, are apt to feel that their primary responsibility is to the stockholders. Men have been known as corporation officials to sanction practices which they would have regarded as quite beneath them in their private relations. Much progress is being made, however, in bringing home to corporation directors and officials a sense of personal responsibility for the practices of the corporations they are managing.

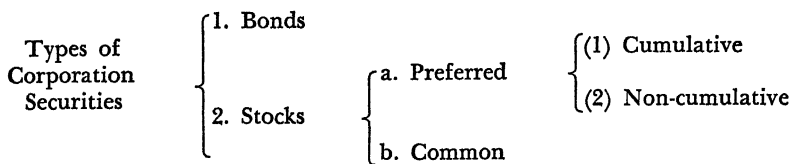
Corporation capital and the securities issued to represent it. The capital of a corporation, as well as of any other business enterprise, is all property held for procuring income for its owners. The capital of a business unit is acquisitive capital; in order to yield income, however, it must usually be employed productively. In the business world any income-yielding property is capital, whatever its origin and whatever its concrete form. It may originally have been produced by man or merely have been appropriated by him. It may find expression in such tangible material goods as land, buildings, tools, machinery, raw materials, and finished goods; or in such intangible goods as franchise privileges, patent rights, and good-will.

The capital of a corporation may all be owned by the stockholders, or it may be partly borrowed. The term "gross capital" is sometimes used to describe the investment of the owners plus their borrowed capital, and "net capital" to indicate that part of the capital of a business unit which is owned by the proprietors themselves. The Eastman Kodak Company and General Motors Corporation—two conspicuous examples—have no funded debt, which means that they have no borrowed capital invested in the business requiring repayment at the expiration of a stated period of years. Almost all our railway corporations, on the other hand, have heavy funded debts—they are operating in large part with borrowed capital.

The ownership of corporation capital is divided into parts or shares and is evidenced by certificates of ownership commonly known as shares of stock or stocks. If the corporation has borrowed funds to invest in the business, the usual procedure is to issue notes or bonds, which are instruments binding the company to pay

back the borrowed sums at a stipulated time. Stocks are entrepreneurial or ownership interests in the corporation, representing permanent investments in the business. Bonds and notes are creditor interests representing loans to the business for a limited period of time. The earnings of a corporation paid to its stockholders are called dividends; the return on bonds is interest. Stocks and bonds together are commonly known as securities. They are freely transferable, and consequently it is possible for any investor, large or small, to acquire an interest in almost any large corporation at any time, and to dispose of his holdings with equal ease.

Corporate securities may broadly be classified as follows:



Bonds. Stocks and bonds are of many different kinds so as to appeal to all types of investors. They differ widely in the assets supporting them, in the priority of their claims upon income, in the degree of risk which their ownership involves, and in the control which their owners have over the corporation. Since bonds are always a promise to pay and since most persons do not care to lend their funds except upon reasonable security, it is usual for bonds to have some definite supporting value. The underlying security of a bond may be a mortgage on all or part of the property of the corporation, which makes it a *mortgage bond*. It may be the securities of other corporations owned by the corporation issuing the bonds and pledged as collateral security for payment of the bonds, which makes them *collateral trust bonds*. It may be equipment, such as the rolling stock of railways, which makes them *equipment bonds*. It may be merely a prior claim on future earnings, which is the essence of *income* or *debenture bonds*. Such bonds resemble unsecured promissory notes. The bondholder as a rule not only has a prior claim upon the assets of a corporation but also upon its earnings. The claims of creditors, including bondholders, must always be met before the owners of a corporation (the stockholders) can take any-

thing for themselves. The penalty of not meeting obligations to creditors is foreclosure and bankruptcy. Since the bondholder's claim upon assets and earnings is prior to that of the stockholder, the bonds of a given corporation involve less risk than its stocks.⁴ While the bondholder occupies a favored position as to assets and earnings and consequently carries a smaller risk than the stockholder, he has no voice in the management of the corporation. Only if the corporation proves insolvent do the bondholders, as the largest creditors, assume control of the enterprise. In such case if the business is kept going and is successfully reorganized, it not infrequently happens that the bondholders emerge as the stockholders of the reorganized company.

The illustration on the following page shows the features of one type of bond.

Preferred stock. The control over a corporation very properly rests with the stockholders who are its owners. In practice, however, it has often seemed desirable to differentiate risk and control even among the stockholders. Under such circumstances it is usual for a corporation to issue two kinds of stock: preferred and common. The issuance of preferred stock with the stipulation that its owners shall be paid a designated rate of return from the earnings remaining after the bondholders have been paid, but before the common stockholders are paid anything, usually arises out of the necessity of catering to a group of investors who desire a higher return than it is ordinarily possible to obtain from first-class bonds and yet who wish to avoid some of the risks inherent in common stock.

The claim of the preferred stockholder upon the earnings of a corporation that are available for distribution is of course inferior to that of the bondholder, but superior to that of the common stockholder. As to dividend rights, preferred stock is of two types: *cumulative* and *non-cumulative*. If a corporation has issued cumulative preferred stock, it is under obligation to pay the holders thereof each year the return promised—7 per cent for instance—before paying any dividends to the holders of common stock. If unable to do so in any year, the dividend arrears of that year must be paid out of the

⁴ Income or debenture bonds, which practically shade into stocks, have a prior claim upon earnings but not upon assets.



COLLATERAL TRUST BOND OF THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY

earnings of subsequent years before the common stockholder can get anything. On January 1, 1936, the American Woolen Company, for example, was $58\frac{1}{4}$ per cent in arrears on its 7 per cent cumulative preferred stock. If the preferred stock is of the non-cumulative kind, however, the owner has the promise that *in any given year* his dividends at the specified rate must be paid before the common stock can be paid anything; but if the corporation is unable to pay the dividends in any given year, it is under no obligation to make up the arrears in any future period. The preferred stock of the United States Rubber Company is 8 per cent non-cumulative. The last dividend was paid in January, 1928. The dividends which the company has "passed" since are permanently lost to the preferred stockholders.

Preferred stock is usually paid a fixed return—a specified annual rate on the stock's par value, which is generally \$100. The United States Steel Corporation pays 7 per cent and no more on its preferred stock. Occasionally preferred stock has a participating feature, entitling it to share with the common stock any earnings beyond a designated rate of return. The preferred stock of the Westinghouse Electric and Manufacturing Company is not only entitled to 7 per cent before anything can be paid on the common stock, but after the common has also been paid 7 per cent, the preferred shares equally with the common in any further dividends. While preferred stock is usually restricted to a specified rate of return, it should also be understood that this return is in no way guaranteed. All that the preferred stockholder has is the assurance that his dividends at the specified rate will be paid before the common stockholder gets anything.

Not only does the preferred stock have rights to dividends that take precedence over those of the common stock, but it usually also has prior claims upon the assets in the event of the failure of the corporation. The risk of owning it is therefore less than the risk of owning common stock. Because of the smaller risk he carries as to the payment of dividends and as to the security of his investment, the preferred stockholder is frequently denied any part in the management of the corporation. On the other hand, in many corpora-

tions, such as the National Lead Company, preferred and common stockholders have equal voting rights, share for share.

Common stock. The holders of the common stock of a corporation are the residual claimants to its earnings and assets. They have no right to either until all other claims are satisfied. They assume the greatest risk of loss and accordingly expect to have the surplus profits. The final equity in the business resides in them. Control over the corporation is the condition, and the chance to make indeterminate profits is the reward, which they ask for the risk they assume. The common stockholders of many corporations have received nothing for years; and again, many have received large dividends, 30, 60, and 100 per cent. It is the common stock of a corporation that has the greatest speculative possibilities.

Like the preferred stock, the common stock frequently has a face or par value of \$100 per share, such as that of the United States Steel Corporation. But \$50 shares, such as those of the Pennsylvania Railroad, and \$10 shares, such as those of General Motors Corporation, are not uncommon. Recently no-par value stock, which carries no assigned nominal value whatever, has become more common than par value stock. The issuance of no-par value stock enables the corporation to avoid the appearance of putting an official valuation on stock the real value of which, regardless of its par value, is determined by constantly changing earnings. The removal of the par value appendage is like removing the vermiform appendix—both are now largely useless and sometimes prove dangerous. Shares without par value represent merely a proportionate claim upon earnings and a proportionate equity in the assets of a corporation after all liabilities have been met. The General Electric Company is a well-known corporation which has issued stock without par value.

Some corporations issue but a single type of stock, which is then, whatever it may be called, common stock. This is true of the American Telephone and Telegraph Company, a stock certificate of which is shown on the following page.

What the financial statement of a corporation shows. The meaning of "corporation capital", "interest on bonded debt", and "dividends on stock" can be made more concrete by examining the



COMMON STOCK CERTIFICATE OF THE AMERICAN TELEPHONE AND
TELEGRAPH COMPANY

statements of corporations. Sometimes it takes an expert accountant to construct them and even more to interpret them, but the surface facts at least ought to be intelligible to any interested reader. There are two accounting statements of interest in this connection: the financial statement or balance-sheet, and the operating statement showing profits made or losses incurred.

The financial statement or balance-sheet is a statement of the assets and liabilities of a business on a given date. Under assets are included what the business *owns*, the total value of its resources; under liabilities, what the business *owes*, the amount of its obligations. Such a statement can be drawn up at any time from the ledger records of a business. The balance-sheet has not inaptly been described as a photographic snap-shot of a business on a given date.

The following statement of the assets and liabilities of Pullman, Incorporated (a corporation that not only operates the well-known sleeping-cars but also manufactures both railway passenger and freight cars) is typical of the information furnished by a balance-sheet.

PULLMAN, INCORPORATED
CONSOLIDATED BALANCE SHEET

DECEMBER 31, 1934

Assets

CURRENT ASSETS:

Cash	\$ 16,729,740.63	
U. S. Government Securities		
(Market value \$19,871,592.51)	19,037,436.52	
Accounts and Notes Receivable	6,606,650.49	
Equipment Trust and Other Deferred-		
Payment Car Accounts	14,054,893.22	
Marketable Securities		
(Market value \$2,158,328.17)	2,360,254.44	
Inventories at Cost	10,686,021.78	\$ 69,474,997.08

INVESTMENT IN AFFILIATED COMPANIES AND

OTHER SECURITIES AT COST	4,145,659.27
--------------------------------	--------------

SPECIAL DEPOSITS WITH VARIOUS STATES UN-

DER COMPENSATION ACTS	124,029.26
-----------------------------	------------

RESERVE FUND ASSETS:

Pension and Insurance Reserve Fund Assets (U. S. Government Securities)	8,026,580.98
---	--------------

DEFERRED CHARGES APPLYING TO FUTURE

OPERATION OF THE PROPERTIES	557,557.52
-----------------------------------	------------

EQUIPMENT AND PROPERTY:

Balance, December 31,	
1933	\$356,881,295.70
Additions during Year .	7,243,497.37
	<u>\$364,124,793.07</u>

Less:

Retirements during		
Year	2,103,172.16	\$362,021,620.91

DEDUCT

Depreciation Reserves:

Balance, December 31,	
1933	\$165,138,576.46
Additions during Year .	11,993,240.27
	<u>\$177,131,816.73</u>

Less: Charges on Account of Retirements during Year

1,219,122.66	175,912,694.07	186,108,926.84
		<u><u>\$268,437,750.95</u></u>

Liabilities

CURRENT LIABILITIES:

Current Accounts Payable and Payrolls \$	6,559,993.56
Accrued Taxes, not yet due, including	
Provision for Federal Income Tax ...	<u>3,952,524.32</u> \$ 10,512,517.88

RESERVES:

Pension and Insurance Reserves	\$ 8,308,862.25	
Reserve for Contingencies	3,350,000.00	
Other Reserves	<u>2,922,704.89</u>	14,581,567.14

DEFERRED CREDITS APPLYING TO FUTURE

OPERATION OF THE PROPERTIES	1,416,635.20
-----------------------------------	--------------

CAPITAL STOCK

PULLMAN, INCORPORATED

Authorized 3,875,000.000 shares, of no
par value.

Unissued	199,444 shares, held for exchange for 99.722 out- standing shares of The Pullman Com- pany.	
Issued	<u>3,874,800.556</u> shares at stat- ed value of \$50 per share	193,740,027.80
Reacquired (In Treasury)	54,328.000 shares at stat- ed value of \$50 per share	2,716,400.00
Outstanding	<u>3,820,472.556</u> shares	<u>\$191,023,627.80</u>
THE PULLMAN COMPANY (a subsidiary)		
Outstanding	99.722 shares of \$100 par value each	9,972.20
		<u>\$191,033,600.00</u>
SURPLUS AS PER STATEMENT FOLLOWING	<u>50,893,430.73</u>	241,927,030.73
		<u><u>\$268,437,750.95</u></u>

Most of the items on this balance-sheet are self-explanatory. An important grouping of accounts on the assets side, commonly made by corporations in drawing up their financial statements, is that listed under the heading of *current assets*. These stand in contrast to *fixed assets*, which in the accompanying Pullman statement are chiefly represented by the equipment and property account. Current assets represent cash or what is fairly readily convertible into cash. Fixed assets represent the more permanent investments in the business.

Liabilities may also conveniently be grouped under several general headings, the chief of which are *current liabilities* and *fixed liabilities*. Current liabilities represent relatively temporary obligations of the business, such as accounts payable for materials or services. Fixed liabilities include the obligations of a corporation to its bondholders, the holders of its funded debt. Obligations to stockholders include both the capital which they have invested (the capital stock) and the earnings which have been allowed to remain invested in the business (surplus and undivided profits). In strict

construction the capital account of a business with its owners is not a legal liability, but it is the almost universal practice in corporation financial statements not to list the proprietary interest separately, but to include it in the corporation's liabilities. The item *undivided profits*, unless merged with surplus as in the present illustration, appears on the liabilities side to offset gains in assets derived from successful business operations. It is out of undivided profits that dividends are periodically declared and paid. If all of the undivided profits are not distributed as dividends, it is common corporate practice to transfer part or all of the remainder to the surplus account, which also appears on the liabilities side of the balance-sheet. *Surplus* is not what many people suppose it to be, namely, cash or its equivalent immediately available for any corporate use. It is the important balancing item of a financial statement. Surplus is the difference between the stated total value of the assets of a business and its total liabilities, including debts and either the stated or par value of its outstanding stock. Surplus that is "earned" as distinguished from "paid-in" surplus represents reinvested corporate earnings. The reinvestment may be embodied in any one or all of the items appearing on the assets side of the balance-sheet, exactly as is the case with the capital sums realized from the sale of stocks and bonds. Still another, though closely related, item appearing on the liabilities side of the balance-sheet is that of *reserves*. Such items, for there is often more than one, are usually earnings or surplus "earmarked" for a special purpose.

The most obvious and striking characteristic of a balance-sheet is that it must always balance; the total listed value of the assets must always equal the total amount of the liabilities. If the "profit and loss surplus" item should disappear from the liabilities side, and it becomes necessary to set up a "profit and loss deficit" item on the assets side in order to balance the accounts, such procedure is of course a "red ink" announcement to the world that the capital of the business has been impaired and that there is trouble ahead.

What the operating statement of a corporation shows. The operating statement of a business sets forth its income and expenditures over a given period of time for the purpose of showing profits made or losses sustained. It is thus a motion-picture revealing the

results of the corporation's activities during the designated time interval. The statement of income and expenditures should not be confused with the statement of receipts and disbursements. The latter is a mere record of the inflow and outflow of money over a period of time and for all purposes. The former compares earnings and expenses so as to show profit or loss. The operating statement in fact is frequently called the "profit and loss statement".

The following statement of the earnings and expenses of the American Telephone and Telegraph Company for the year ending December 31, 1934, shows what an operating statement reveals concerning the results of the year's activities.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

INCOME STATEMENT

	Year 1934	Year 1933
OPERATING REVENUES		
Toll Service Revenues	\$ 74,088,966.24	\$ 70,830,767.30
Message tolls and private line service revenues.		
License Contract Revenues	11,803,217.41	11,962,935.47
Payments received for services furnished associated telephone companies under license contracts.		
Miscellaneous Revenues	4,120,251.71	4,942,141.74
Less: Uncollectible Operating Revenues	564,527.00	1,040,735.14
TOTAL OPERATING REVENUES	\$ 89,447,908.36	\$ 86,695,109.37
OPERATING EXPENSES ^a		
Current Maintenance	14,714,864.11	13,536,614.06
Depreciation Expense	17,407,298.72	16,876,063.68
Traffic and Commercial Expenses	7,214,347.35	6,647,645.22
Provision for Employees' Service Pensions	901,178.00	945,808.00
Employees' Sickness, Accident, Death and other Benefits	371,014.57	459,916.64
Operating Rents	11,396,928.94	12,541,015.39
General and Miscellaneous Expenses .	17,662,780.21	17,177,840.40
Less: Expenses Charged Construction .	94,572.36	95,194.20
TOTAL OPERATING EXPENSES	\$ 69,573,839.54	\$ 68,089,709.19
NET OPERATING REVENUES	\$ 19,874,068.82	\$ 18,605,400.18
TAXES	5,364,162.84	4,951,940.52
OPERATING EARNINGS	\$ 14,509,905.98	\$ 13,653,459.66

DIVIDEND REVENUES	115,409,048.13	127,913,090.47
INTEREST REVENUES	15,271,590.36	20,231,713.69
MISCELLANEOUS NON-OPERATING REVENUES—NET	721,926.64	371,507.55
TOTAL NET EARNINGS	<u>\$145,912,471.11</u>	<u>\$162,169,771.37</u>
INTEREST DEDUCTIONS	24,163,741.81	24,712,995.03
NET INCOME ^b	<u>\$121,748,729.30</u>	<u>\$137,456,776.34</u>
DIVIDENDS DECLARED	<u>\$167,960,475.00</u>	<u>\$167,960,475.00</u>
Dividends at the rate of \$9.00 per share per annum on capital stock:		
Charged against Net Income	\$121,748,729.30	\$137,456,776.34
Charged against Surplus	46,211,745.70	30,503,698.66

^a The expenses shown under this caption include the cost of maintaining and operating the Company's long distance communication service and costs incurred by the Company in the performance of general staff services, i.e., development and research, patent, general advisory and other services, furnished associated telephone companies under license contracts.

^b Net Income of the Company \$121,748,729 for 1934 and \$137,456,776 for 1933 exceeds by \$10,581,175 and \$37,114,901, respectively, the Company's proportion of the consolidated Bell System Net Income for these years as shown on page 15. The Net Income figures of the Company, by itself, include dividend revenues paid in part by some of the affiliated companies from their previously accumulated surplus earnings and do not take into account the Company's proportion of the undivided profits or deficits for the year (after dividends, if any) of associated and other affiliated companies. No dividends were received from the Western Electric Company, Inc., in either year, that company, including its subsidiaries, having a net deficit for 1934 of \$7,751,548 and for 1933 of \$13,772,504.

Corporation capital and capitalization. The *capital* of a corporation has been defined as its income-yielding property. Capital in this acquisitive sense includes all the assets owned by a corporation,—such tangible material goods as land, buildings, tools, machinery, and raw materials as well as such intangible goods as patent rights and good-will. All these forms of corporation capital have value, which may be quantitatively measured in terms of money. The exact value of a corporation's capital is not easily determined, however. Since various methods of calculating capital value can be used with very different results, the figures appearing on the assets side of a corporation's balance-sheet are not always a reliable statement of the value of a corporation's capital. The corporation's property

may be worth either more or less than the figures indicate, depending partly upon the honesty of the corporation and partly on what method of determining capital value has been used.

The *capitalization* of a corporation may be defined as the total par value of its outstanding stocks and bonds. If the corporation has issued no-par value stock in addition to other securities, its capitalization is represented by the total par value of its outstanding stocks and bonds plus the stated value, carried on the balance-sheet, of the no-par stock that has been issued. In the business world capitalization is understood to represent both the capital furnished by the proprietors (stockholders) and the relatively permanent or funded debt incurred for investment in the business, the funds for which are supplied by creditors (bondholders). As shown above, the capitalization of a corporation appears on the liabilities side of the balance-sheet. In the statement of Pullman, Incorporated, the outstanding capitalization is represented by 3,820,472 outstanding shares with a stated value of \$191,023,627. The company has no bonded indebtedness. The capitalization of a corporation only changes when new shares of stock or new bonds are issued, or old securities are retired.

What is the relation between a corporation's capitalization and the value of its capital? While the capitalization and the value of invested capital may coincide when the corporation is organized (provided the corporation has received full par value for its stocks and bonds), this equality is lost as soon as the corporation begins business operations. Profits made or losses incurred change the value of the invested capital, but they do not affect the outstanding capitalization. This divergence between the capitalization and the value of the invested capital of a corporation gives rise to the question, How can a *fair capital value* and a *reasonable capitalization* be determined? Capitalization is said to be reasonable when it closely approximates the capital value of the corporation. A corporation is said to be over-capitalized when the capitalization is in excess of or over the capital value; and it is said to be under-capitalized when the capitalization is less than or under the capital value. For the determination of capital value three methods are used: the *historical cost*

method, the *cost of reproduction* method, and the *earning capacity* method.

The determination of fair capital value and reasonable capitalization is of fundamental importance to both the investing and the consuming public. The investor, actual or prospective, is interested in knowing what the value of the capital assets is that secures each share of stock. Governmental bodies, responsible for the regulation of public utilities to protect the consuming public, are interested in determining what constitutes a *fair rate of return on fair capital value*. The determination of a fair rate of return offers no very great difficulty. The determination of fair capital value, on the other hand, presents exceedingly great difficulties in the fields of both competitive and monopolistic enterprise.

The historical cost standard Perhaps the most popular and easily understood standard for determining what constitutes fair capital value and *ipso facto* reasonable capitalization is the historical cost or original investment. Money or its fair equivalent actually paid into the corporation, either at its establishment or subsequently, constitutes the historical cost or original investment. The amount of the actual investment can be ascertained from the books of the company, provided accurate and honest accounting records have been kept. At first sight it seems eminently fair that this historical cost and nothing more should be represented by a corporation's outstanding stocks and bonds—that the corporation should be capitalized for no more and no less than the money actually paid into it by the stockholders and bondholders. But a little reflection shows that such capitalization soon proves an inadequate representation of the real capital value. It may be either too high or too low; too high, if there has been extravagance, incompetence, or dishonesty in making the capital investment, or if there has been a recession in the general price level; too low, if management has proved unusually efficient, or if there has been an advance in the general level of prices. In order to eliminate from consideration such costs as are due to mismanagement, it has been suggested that the historical cost standard for determining fair capital value and reasonable capitalization be modified to mean *historical costs when prudently incurred*.

The cost of reproduction standard. To meet some of the objections to original investment as a basis of valuation and capitalization, it has been suggested that the cost of replacing the business plant in its present condition be taken. To estimate such replacement cost it is necessary to compute cost of reproduction new and to subtract therefrom an amount equal to the probable depreciation for the number of years the present plant has stood. Cost of reproduction new minus depreciation fully covers any general changes in prices that may have taken place since the original investment was made, and, if the estimate is conservative, it also eliminates any possible inflation of values due to lack of prudence, incompetence or worse. Cost of reproduction is a fairly satisfactory standard for determining fair capital value and reasonable capitalization, so long as only the tangible physical assets of a business are considered. But corporations are "going concerns". To make them such it has been necessary to build up an organization, to acquire a good reputation, and to develop good-will. These intangible assets it is often impossible to reproduce, and accordingly the allowance made for them in figuring reproduction costs is usually a rather vague and often generous guess.

The earning capacity standard. The business world is most partial to earning capacity as a standard for determining what is a fair capital value and a reasonable capitalization for any corporation. It is argued that, when men buy an interest in a corporation, what they are buying of real value is a claim upon future income. No matter what the original investment in a business may have been, nor how much it may cost to reproduce it, if its present and future earnings are nil, it has no value. Accordingly, the contention is that earning capacity is the only fair measure of the capital value of a corporation, and the only gauge as to whether the outstanding stocks and bonds represent a reasonable capitalization. Indeed, it is common in the business world to speak about "capitalizing earnings", meaning by that to find the amount on which the earnings, present or prospective, represent an assumed rate of return. Thus, average annual earnings of \$140,000, if a 7 per cent return is expected, may be said to represent a capital value of \$2,000,000, and to be able to

carry a capitalization in outstanding stocks and bonds of like amount.⁵ In such capitalization of earnings it not infrequently happens that hope and imagination play an important, if not controlling, part. The capitalization of earnings method for finding fair capital value of competitive business appeals strongly to all investors, actual and prospective. Assets, as evidenced by historical cost or cost of reproduction, are chiefly important to them as means of developing earnings, upon which the capital value of a business rests. It is obvious, of course, that the earning capacity method of finding capital value cannot be applied to a public utility corporation, since the earning capacity of a public utility subject to regulation is itself determined by the rates it is allowed to charge.

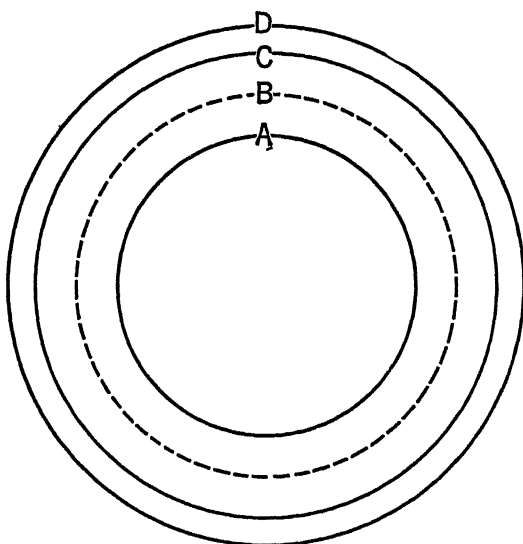
In actual practice all three standards—historical cost, cost of reproduction, and earning capacity—are used by either private business or public bodies in arriving at a judgment as to what constitutes fair capital value and a reasonable capitalization for a corporation. Private business favors earnings; public bodies emphasize assets, as revealed by original investment and as corrected by the cost of reproduction under normal conditions.⁶

Over-capitalization and under-capitalization. It follows from the preceding discussion of corporation capital and capitalization that almost every corporation at some time in its history shows a wide divergence between its outstanding capitalization and the real value of its invested capital. This discrepancy is described by the terms "over-capitalization" and "under-capitalization". The former

⁵ Given the average annual net earnings of a corporation and the expected rate of return on capital invested in such enterprise, the capital value is found by dividing the net earnings (\$140,000) by the expected rate of return (.07), which gives as quotient, the capital value (\$2,000,000) calculated according to the earning capacity method.

⁶ The United States Supreme Court in the celebrated case of *Smyth v. Ames*, decided in 1898, said: "We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation maintaining a highway under legislative sanction must be the fair value of the property being used by it for the convenience of the public. And in order to ascertain that value, the original cost of construction, the amount expended in permanent improvements, the amount and market value of its stocks and bonds, the present as compared with the original cost of construction, the probable earning capacity of the property under particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration and are to be given such weight as may be just and right in each case."—169 U. S. 546-547.

exists whenever the total par value of all the outstanding stocks and bonds of a corporation is in excess of the actual capital value; the latter, when it is less. Capitalization, which is supposed to represent the capital value, may in practice be either highly inflated or grossly inadequate. It should be noted, however, that any conclusion as to whether a corporation is over- or under-capitalized turns on the standard adopted for measuring fair capital value and fair capitalization. A corporation may indeed at any given time be over-capitalized when judged by one standard and under-capitalized when judged by another. The following diagram will help make this clear.



Circle A represents historical cost or original investment.

Circle B represents capitalization.

Circle C represents cost of reproduction.

Circle D represents capitalized earning capacity.

The business illustrated by the above diagram is obviously over-capitalized as to historical cost and under-capitalized as to cost of reproduction and earning capacity. The facts may be very different for other corporations, and the position of the circles representing the facts would be correspondingly altered. To establish these facts is often a laborious undertaking. Historical cost can only

be ascertained from the books of the company, provided accurate accounting records have been kept. Capitalization is revealed by the balance-sheet of the company.⁷ Cost of reproduction is a matter of computation—often lengthy and difficult, and in the case of intangible assets an estimate at best. Earnings are shown by the operating statement, setting forth profit or loss.

The most important inquiry into the relation of capital value and capitalization ever made in this country, or probably in any other country, is the valuation of the railroads ordered by Congress in 1913. For nearly a score of years a large staff of engineers, accountants, and lawyers in the Bureau of Valuation of the Interstate Commerce Commission, in cooperation with an even larger staff of railway employees, was engaged upon the enormous task of ascertaining the value of the 800 to 900 railroads or railroad systems of the country. The commission found that the complete original cost of most railroads could not be determined. For the most part the commission was engaged in computing what it would cost to reproduce the railway properties new and in their present condition, most primary valuations being based on the years 1914, 1915, or upon the average net prices paid during the five-year periods ending in those years. The results published seem to indicate that the net capitalization of the railroads (the funded debt plus par value of stock outstanding in the hands of the public), amounting in 1932 to \$18,893,459,447, is less than the cost of reproducing the railways in their present condition if an allowance is made for land. This indicates undercapitalization with reference to cost of reproduction.⁸

⁷ This can be obtained from the annual report of the corporation to its stockholders, or from such annually published manuals as *Moody's Analyses of Investments*.

⁸ "The I.C.C. computed the cost of reproduction *new* of the steam-railway property other than land of the carriers in existence on December 31, 1932, as \$23,953,546,235 at period prices as of June 1, 1933, and \$23,742,958,869 at spot prices as of that date. Cost of reproduction less depreciation was computed as \$17,754,467,309 at period prices and \$17,599,113,778 at spot prices. Original cost, except land, was placed at \$22,860,365,394. The present value of land and rights as of June 1, 1933, totaled \$3,032,799,826. Necessary working capital, including material and supplies, was computed as \$338,854,000."

The Interstate Commerce Commission is directed to keep itself "informed of all new construction, extensions, improvements, retirements, or other changes in the condition, quantity, use, and classification of the properties subsequent to their original valuation, made under the provisions of the act of 1913 and amend-

When the United States Steel Corporation was organized in 1901 through the consolidation of about a dozen companies, at least \$600,000,000 of the outstanding capitalization of \$1,400,000,000 represented no value whatever—neither original investment, nor cost of reproduction, nor demonstrated capitalized earning capacity. The corporation was grossly over-capitalized. (Circle “B” in the diagram fell outside the other three.)⁹ But the Steel Corporation prospered. For thirty years and more there has been a steady conversion of earnings into physical assets and the substitution of these for over-

ments of 1920 and 1922. We are to keep ourselves informed of the cost of all additions and betterments, of all changes in the investment, of current changes in the cost and values of all properties, and to have available at all times the information deemed necessary to revise and correct the previous inventories, classification, and values of properties and, when deemed necessary, revise, correct, and supplement any and all the inventories and valuations.”

“With original, or primary, valuations completed our present valuation activities fall under the direction of the above referred to amendments.”

—*Forty-seventh Annual Report of the Interstate Commerce Commission, 1933, pp. 73, 76.*

⁹ “The capitalization of the company in 1901 after the acquisition of the Shelby Tube Company (in August) was as follows:

Steel Corporation bonds	\$ 303,450,000
Underlying bonds	59,091,657
Purchase money obligations, etc.	21,872,023
Preferred stock	510,205,743
Common stock	508,227,394
Total	<u>\$1,402,846,817</u>

The Bureau of Corporations made a detailed study of the value of the properties of the Steel Corporation in 1901 in order to determine whether the company was over-capitalized, and if so, to what extent. Three different methods were employed. The first method was an historical study, an analysis of the investment of the constituent companies at the time of their organization. The second method was a mathematical computation, a summation of the market value of the securities of the constituent companies, using the average weekly prices from the date of the organization of these combinations up to December 31, 1900. The market prices during the early months of 1901 were not included, since these were naturally influenced by the prospective organization of the Steel Corporation. This second method represented the estimate put by the public on the securities of the constituent companies, and it therefore reflected the probable earning power of these combinations. The third method was a physical valuation, a detailed estimate of the physical properties of the Steel Corporation by departments of its business, the valuation of the ore properties being made in particular detail. The valuation arrived at by the Bureau by the first method was \$676,000,000; by the second method, which included intangible items, \$793,000,000; and by the third and more accurate method, \$682,000,000.”

—Eliot Jones, *The Trust Problem in the United States* (New York: The Macmillan Company, 1921), pp. 207–208, based on the U.S. Commissioner of Corporations, *Report on the Steel Industry*, Part I, 14–15.

capitalization, until today such over-capitalization has disappeared. (Circle "C" now falls outside of Circle "B".) Many corporations at times show a capitalized earning capacity far in excess of their actual capitalization (which was notably true of corporations profiting by unusual war-time prosperity), and again when earnings shrink, such capitalized earning capacity may be less than the outstanding capitalization. All of the railways of the United States at some time during the great depression beginning in 1929 had insufficient earnings to carry their outstanding capitalization. When the earnings of a corporation over a period of years are regularly insufficient to meet the combined claims of its bondholders and stockholders, it is over-capitalized. Failure to pay interest on bonded indebtedness means bankruptcy and receivership. Inability to pay dividends on cumulative preferred stock, if there is any, means ultimate reorganization of the company. Only the claims of the common stock can be indefinitely deferred. (Circle "D" representing capitalized earning capacity, under such circumstances falls inside Circle "B"; it is constantly expanding and contracting with changes in the fortunes of the business.)

Stock-watering versus stock dividends. When over-capitalization is due to the issuance of stock without the receipt or possession by the corporation of an equivalent value, the stock is popularly said to be "watered".¹⁰ A "stock-watering" operation should not be confused with the usual issuance of stock dividends. The former is a case of over-capitalization; the latter, an attempt to rectify under-capitalization. "Watered stock", as just pointed out, represents no equivalent value received or owned by the corporation. A stock

¹⁰ "There are a good many stories as to the derivation of this term 'watered stock'. The one that seems most plausible is built around an incident in the life of Daniel Drew. It seems that this famous financier, in his cattle-ranging days (Drew sprang from the soil, and was illiterate to the day of his death), once had occasion to drive a herd of cows many miles to market, and that, in true Drew fashion, he drove them half to death in the effort to 'get there quick'. Arriving near the market, his beasts gaunt with hunger and thirst, Drew realized that he could never sell them as they stood. They must be either watered or fed, and preferably both. Drew took the cannier way. He watered them only. As a result, their sides swelled out to abnormal proportions, at no cost to him, and they could be brought to the block looking like pampered calves. 'Watered stock' they were, in every sense of the word, stock that was given the appearance of value, but which very quickly deflated after buying enthusiasm had cooled off."

—*Magazine of Wall Street*, XXXI (1923), 1101.

dividend (which is a dividend paid stockholders in the form of additional shares of stock rather than in cash) represents a capitalization of surplus. It means that earnings have been allowed to accumulate in the business in the form of surplus, which of course represents an increase in the assets of the corporation and in the supporting value of its stocks. When a stock dividend is declared, the proper bookkeeping procedure is to decrease surplus by an amount equal to the increase in stock. During 1921–1922 there was an avalanche of stock dividends in this country, 50 per cent, 100 per cent, and 200 per cent being common; one company, the Brown and Sharpe Manufacturing Company of Providence, declared a 15,900 per cent stock dividend, increasing its capital stock from \$100,000 to \$16,000,000.

Objections to stock-watering. The chief valid objection to “watered stock” is offered by the investor. If all investors, small as well as large, in a corporation’s securities could be sure of equal treatment in the distribution of “watered stock”, even this objection would lose some of its force. But the minority stockholder does not have this assurance; consequently “stock-watering” often affects his interests adversely. The issuance of stock for which the corporation has received or earned no equivalent reduces the value of each outstanding share; if the minority stockholder does not receive his pro rata amount of the “watered stock”, the value of his interest in the business is lowered. “Stock-watering” furnishes a tempting opportunity, hard to resist, for some persons to acquire their stock on much easier terms than others. If a corporation’s prospective earnings look reasonably promising, and unissued stock is available, it is a great temptation for those in control to issue it to themselves as promoters in return for services, fictitious or greatly over-valued; or to issue it in return for some of their properties turned over to the corporation at highly inflated values. While a careful and intelligent investor presumably investigates both the earning capacity and the assets supporting the securities he is contemplating purchasing, and consequently makes due allowance for any over-capitalization, deception is exceedingly easy. At the organization of a corporation only “insiders” know whether properties have been acquired at a fair price and what their earning power really is. What is more, it is a notorious fact that many otherwise careful and intelligent persons

are anything but careful and intelligent in making their investments. "Stock-watering" makes deception easy.

The objection of the consumer to "watered stock" is more questionable. It is sometimes argued that inflated capitalization is the cause of high prices; that it brings pressure to bear upon the officers and directors of a corporation to raise prices in order to make the profits out of which dividends can be declared. But under truly competitive conditions such procedure is impossible, and a corporation's capitalization has nothing to do with the most profitable level of prices for its commodities or services. Only when the corporation is a monopoly, that is, has such power over the supply of a good as to fix its price, is the consumer's objection a valid count in the indictment against "stock-watering".

APPENDIX: CORPORATION CHARTER FORM

The provisions of a corporation charter are illustrated by the following form.

KNOW ALL MEN By these presents, that the undersigned, adult residents of the State of _____ do hereby make, sign and agree to the following

ARTICLES OF ORGANIZATION

ARTICLE FIRST.—The undersigned have associated, and do hereby associate themselves together for the purpose of forming a corporation under Chapter — of the _____ Statutes and the acts amendatory thereof and supplementary thereto, the business and purpose of which corporation shall be which said business is to be carried on within the State of and especially within the County of, in said State.

[A corporation must confine itself to the business designated in its charter; the provisions of this article become a distinct limitation upon the corporation's activities.]

ARTICLE SECOND.—The name of said corporation shall be and its location shall be in

ARTICLE THIRD.—The capital stock of said corporation shall be and the same shall consist of shares, each of which said shares shall be of the face or par value of dollars.

[Details concerning the kinds of stock and whether or not it has any par value are inserted here.]

ARTICLE FOURTH.—The general officers of said corporation shall be a President, Vice-President, Secretary and Treasurer, and the Board of Directors shall consist of Stockholders.

ARTICLE FIFTH.—The principal duties of the President shall be

[Here follows a statement setting forth the duties, not only of the president, but of the various officers and of the board of directors.]

ARTICLE SIXTH.—Only persons holding stock according to the regulations of the corporation shall be members of it.

ARTICLE SEVENTH.—These articles may be amended by resolution setting forth such amendment or amendments, adopted at any meeting of the stockholders by a vote of at least two-thirds of all the stock of said corporation then outstanding.

ARTICLE EIGHTH.—The names and residences of the persons forming this corporation are:

..... residing at
 residing at
 residing at

In Witness Whereof, We have hereunto set our hands, this
 day of A.D. 19...

SIGNED IN PRESENCE OF

CHAPTER VI

CAPITALISTIC COMBINATIONS

THE COMBINATION MOVEMENT

One of the most striking movements of the last fifty years has been the development of huge capitalistic combinations. The corporation has bred the super-corporation. Many regard these combinations of our day as inevitable, the natural product of economic evolution. Some even profess to see in them the most efficient and socially beneficial forms of productive organization. Others roundly denounce them as malign and sinister influences in our economic life, bound ultimately, unless themselves crushed to death, to destroy the most precious institutions of a free people. To such critics "big business" means tyranny; "Wall Street" is the head of an "octopus", the arms of which suck in and devour the small enterpriser; the "interests" are the real government, even if "invisible government", of the country, political office-holders being mere puppets on a stage set and directed by master hands. Surely, a movement that calls forth such contradictory praise and blame, that inspires both hope and fear, must contain within itself something both of promise and of menace.

It is impossible to present a true picture of the extent to which capitalistic combinations have grown, because we lack comprehensive and trustworthy data. Census reports and other reliable studies can be used to show the decreasing number of establishments in given industries and the enormous increase in capital per establishment; but such data do not begin to reveal the degree of concentration of economic power in this country. The interlocking branches can easily be sketched, but the interlocking roots are hidden from the eye. Capitalistic combinations, meaning combinations of business units, are not confined to a single economic field; they are common in manufacturing and mining, in transportation and other public utilities, in banking, and increasingly in merchandising.

Capitalistic combinations of business units follow two main types, not inaptly described by the terms "horizontal combination" and "vertical combination". The combination is of the "horizontal" type when it is a grouping under a common management of previously independent establishments of the same sort. When a number of sugar refineries, or oil refineries, or gas and electric lighting plants, or retail stores are brought together under a common management, there is "horizontal" combination. It is a "side-to-side grouping of like plants". The early trusts, which will be discussed later in this chapter, such as the Standard Oil Company and the Sugar Refineries Company with its successor, the American Sugar Refining Company, as well as the familiar "chain-stores" of today, are illustrations of "horizontal" combinations. The combination is of the "vertical" type when the organization controls a number or all of the stages from the production of its raw materials to the marketing of its finished product. One of the best examples of "vertical" combination is furnished by the United States Steel Corporation. To be sure, this company is also a "horizontal" combination of a number of one-time competing plants, but it is today distinguished by the successful way in which it has brought together under a single management all the steps in the production of steel commodities. It owns mines of iron and coal, deposits of limestone, steamship and railway lines, smelters, mills for the conversion of pig-iron into steel and for the manufacture of numerous steel products. The United Fruit Company owns great plantations in Central and South America and the West Indies devoted to the raising of tropical fruits and sugar-cane; railways to bring their products to port; a great "White Fleet" for the ocean transportation of their products as well as the carrying of passengers; and refineries for the manufacture of sugar. The International Paper Company and the International Harvester Company are other illustrations of so-called integrated industries or "vertical" combinations.

ECONOMIC CONDITIONS FAVORABLE TO COMBINATIONS

Capitalistic combinations are much more likely to appear in some economic fields than in others. They are rare in agriculture, even

though large amounts of capital are needed in the aggregate, and very common in manufacturing and transportation. Under what economic conditions are combinations of business units likely to arise?

Existence of natural monopolies. Foremost among the conditions favorable to the development of capitalistic combinations is the existence of natural monopolies. The essence of monopoly consists in such control over the supply of a good as to give control over its price. Some businesses are natural monopolies; the control over supply and price is not so much due to human arrangements as it is to natural conditions.

The natural monopoly may be due to an actual limitation of the natural supply of a good; this is conspicuously true of the anthracite coal industry of the United States, which is almost wholly confined to less than 500 square miles in northeastern Pennsylvania. In such an industry the additional profits to be made by a combination controlling the market supply of the commodity prove an almost irresistible force in effecting such combination. For the past fifty years there has been some form of combination in the anthracite coal industry of the United States; particularly since 1898 the coal-owning and -controlling railroads—the Delaware and Hudson, the Lackawanna, the Erie, the Lehigh, the New York, Ontario and Western, the Pennsylvania, and the Reading—have developed a most effective combination, controlling at least 80 per cent of the annual output of anthracite coal.¹ This combination of coal and railway ownership after a decade of litigation (1909–1920) was successfully prosecuted by the government under the so-called “commodities clause” of the Interstate Commerce Act, which among other things makes it unlawful for any railroad company to transport in interstate commerce coal which it owns itself. The coal-owning railroads were

¹ U.S. Federal Trade Commission, *Report on Anthracite and Bituminous Coal* (1917), p. 49. The United States Coal Commission appointed by President Harding reached substantially the same conclusion:

“Eight producing interests affiliated to some extent with the railroads, produce 74 per cent of the total output and control 90 per cent of the underground reserve. The remaining 26 per cent of the output is contributed by so-called independent companies, but the largest of these companies (The Susquehanna Collieries Company) retains a community of interest with one of the railroads.”

—United States Coal Commission, *Report*, U.S. Senate Document 195, 68th Congress, Second Session, 1925, Part I, p. 38.

forced to dispose of their coal properties. Since the usual procedure, however, was to transfer them intact to corporations the stock of which was largely owned by the stockholders of the railroads, there is reason to suspect the existence of an *entente cordiale* almost as effective as the original combination.

Another form of natural monopoly is due to peculiar characteristics of the business itself, rendering the multiplication of competing plants impracticable; this is notably the case in the field of the so-called public utilities, such as gas, electric light and power, the street railway, and the telephone. Competition of independent concerns in such industries is not the way either to ensure low prices or to secure good service. When tried, it has almost invariably proved expensive and frequently disastrous. Both the economic necessity of the operating companies and the need for efficient service to the public have forced the elimination very largely of any attempt to maintain competition in the field of the public utilities. Today, for instance, the Commonwealth Edison Company, itself a consolidation of a number of companies, supplies practically all of the electric light and power for the city of Chicago, while the People's Gas, Light, and Coke Company, the survivor of a number of consolidations, similarly supplies the gas. What is more, these two corporations are controlled by the same financial interests. The Consolidated Gas Company of New York, an actual consolidation of a number of independent concerns and now a corporation with a controlling interest in other corporations, supplies most of the gas, electric light, and power for the city of New York. The chief consideration making for combination among businesses furnishing gas, electricity, and street railway transportation is the fact that expenses per unit of output or service decrease as the volume of business grows. For this reason a combination once established can successfully defy any venturesome competitor in the same field. In the case of the telephone, where there is an increasing expense per subscriber as the number of subscribers grows, the convenience and efficient service of the public are the controlling forces in making the telephone business a natural monopoly. Combination has proved inevitable wherever and whenever there have been conditions of natural monopoly. The additional profit to be made, the necessity of preventing self-

destructive competition, or the need of rendering efficient service to the consuming public has created the combination.

Large-scale standardized businesses capable of centralized control. A second condition favorable to the development of combinations is the existence of large-scale standardized businesses capable of centralized control. Such businesses do not necessarily enter combinations, but they are the unit enterprises out of which the most successful combinations have been built. Combinations play for big stakes; large-scale enterprises, requiring huge investments of capital and producing for wide markets, furnish the necessary opportunity. The very bigness of some enterprises tends to discourage possible new competitors from entering the field and to invite the combination of those already there for the purpose of more completely dominating the field. Combinations thrive best among standardized businesses producing standardized commodities; among businesses in which the routine element is large and the personal element can afford to be small. It is such enterprises that afford managerial genius its widest scope, for they lend themselves to the most centralized control. The most distinctive feature of combinations, it should be emphasized, lies in large-scale management, rather than in large-scale production.

An examination of our largest and most successful combinations, whether natural monopolies or not, shows them to be capitalistic enterprises producing fairly standardized commodities or services under the direction of centralized managements. This is true of such industrial combinations as those in steel, oil, sugar, tobacco, and farm machinery. These are industries in which there has been such marked improvement in the technique of production and such standardization of output that it has been found profitable to extend greatly the scale of operations. Today it costs millions of dollars to build steel plants, oil and sugar refineries, and all that goes with them. This very fact restricts the number of entries in the tournaments of steel and oil and sugar and makes it inadvisable for anyone but giants to enter the lists in the contest for supremacy. Sometimes there have been spectacular contests between such industrial giants. But more likely than not in these days, the giants learn to live together peaceably in combinations, or to arrive at secret understand-

ings that almost as effectively safeguard their domination of the field. The most successful merchandising combinations, to turn to another field, that have yet appeared have been in businesses permitting such conditions of standardization as to afford efficient management the widest scope. The most conspicuous example is furnished by the retail chain-stores. The Great Atlantic and Pacific Tea Company successfully operates over 15,000 grocery stores, and the Kroger Grocery and Baking Company nearly 4,400. The F. W. Woolworth Company has had distinguished success in the operation of over 2,600 five-and-ten-cent stores in the United States and abroad.² The success of these and similar merchandising combinations is largely based upon the economies of large-scale buying (to take full advantage of which requires a far-flung selling organization) and upon the fact that the merchandising is standardized. The railways and other public utilities, to cite still other examples, have offered tempting fields for combinations not merely because for the most part they are natural monopolies but because they represent businesses in which there is so much routine and standardization that combination can go far before it reaches the limits of efficient management. It is businesses engaged in standardized production which profit most by large-scale methods and which can most readily become members of still larger combinations.

Public and private favoritism. A rather adventitious condition which has greatly facilitated the formation of combinations in this country has been public and private favoritism. Public favoritism has found unwitting expression in our protective tariff laws. While it cannot seriously be argued that protective tariffs, designed for quite other purposes, have been the cause of industrial combinations, there can be little doubt that in some industries, such as sugar, they have materially helped by shutting out foreign competition. Indeed, Mr. Havemeyer, long head of the American Sugar Refining Company, testified before the United States Industrial Commission that "the mother of all trusts is the customs tariff bill", being careful, however, to make an exception of his own industry.³ It is doubtful, however, whether any combination ever profited more by tariff

² Figures are for 1934.

³ U.S. Industrial Commission, *Report* (1900-1902), Vol. I, p. 101.

protection than did the so-called sugar trust. In its beginnings, when protection was most helpful in facilitating combination, the tariff on the importation of refined sugar was more than the cost of refining the sugar. The industry enjoyed more than ample protection continuously until the passage of the Underwood Tariff Act in 1913.

Public favoritism expressed in the granting of patent rights, although intended for a very different purpose, has also proved a condition facilitating some combinations. Perhaps the most notable illustration is afforded by the United Shoe Machinery Company. This corporation, organized in 1899, was originally a combination of seven concerns, and it subsequently acquired control over some fifty others, all of them manufacturing shoe machinery and supplies. Through its control of the basic patents, the company has had a monopoly of the manufacture of shoe machinery. It has sought to make the most of its power by leasing, not selling, its machines to the hundreds of shoe manufacturers scattered over the country; and by various tying clauses in its contracts the company made its own position even more secure.

Private favoritism is well illustrated by the rebates which some railways have granted favored customers. The early and long-continued supremacy of the Standard Oil Company was largely due to the preferential treatment which it received from the railways. As early as 1879, twenty years after the first successful oil well had been drilled, the Standard Oil Company is said to have controlled over 90 per cent of the oil-refining business of the country, in spite of the fact that during this period it had had hundreds of competitors. In accounting for its dominating position, the United States Commissioner of Corporations said: "Unquestionably, the most important single element in this early extension of the company's power was the railroad rebate."⁴ The Standard Oil Company, though an extensive producer of crude oil, has not only never had a monopoly of the oil wells of the country but has never produced more than a relatively small part of the crude oil which it has refined. The fulcrum of its power has been transportation. It has had

⁴ U.S. Commissioner of Corporations, *Report on the Petroleum Industry* (1907), Part I, p. 22. Facts immediately following in regard to the Standard Oil Company are in part also based on this report.

a practical monopoly of the pipe-lines by which the crude oil is conveyed from wells to refineries, and it received untold favors, rebates, and concessions from the railroads in the marketing of its refined oil products. Sometimes formal contracts were made with the railroads providing for rebates on the shipments of the Standard Oil Company (and occasionally even for drawbacks on the shipments of its competitors). More frequently secret discriminatory railway rates were established for the benefit of the company. In the petroleum industry transportation costs represent a very large percentage of the total cost of marketing a gallon of oil. A company enjoying especially favorable transportation rates, therefore, in addition to controlling systems of pipe-lines for gathering the crude oil, was in a position to undersell its competitors in any field it chose. By such means Standard Oil crushed its competitors whenever it chose and absorbed those it wanted.

FORMS OF COMBINATION

The spirit of capitalistic combination has found embodiment in a number of representative forms. Often seemingly annihilated in one form, it has presently burst forth in another, apparently stronger than ever. It may well be asked in the light of historical experience whether it is in the power of man to destroy combination as long as economic enterprise endures. Lawmakers have vehemently legislated against it; executive officers of State and nation have vigorously sought to suppress it; and courts have solemnly ordered its dissolution. But somehow the spirit of combination has survived. Its corporeal forms have varied from the loosest, flimsiest sort of association to gigantic corporate mergers. And today on occasion when the law, executives, and courts prove uncomfortably hostile, it seems able to "shuffle off this mortal coil" altogether and to live again in invisible understandings.

Pools. The earliest effective form of capitalistic combination in this country was the pool. Pools for the most part were agreements by which the output of the business units in the pool was regulated, the marketing territory was divided, or the earnings of the business units in the pool were paid into a common treasury to be divided

among them in accordance with some stipulated ratio. Pools flourished in transportation, industry, trade, and agriculture. They became common after the Civil War, and in spite of legal prohibitions they are probably, in one form or another, more numerous today than ever before.

A conspicuous example of a pool based upon control of output is furnished by the steel rail pool which was organized in 1887 and which controlled over 90 per cent of the output of steel rails. The market demand for steel rails was estimated, and under the terms of the pool each of the members was allowed to manufacture a stipulated percentage of the required number. While there was no formal agreement as to prices, restriction of output tended to keep them high.

The Addyston Pipe and Steel Company and five other corporations that were engaged in the manufacture of cast-iron pipes organized in 1894 the Associated Pipe Works pool, which was partly based upon the territorial division of the market. The territory of the United States was classified as "reserved cities", "free territory", and "pay territory". Selling cast-iron pipe in "reserved cities" was restricted to designated companies. In the "free territory" any member of the pool could sell without restriction. But in the "pay territory", comprising thirty-six States in all, members of the pool agreed to pay a bonus into the treasury of the pool on all business transacted. If some gas or water plant in "pay territory", for example, ordered some pipe, the order was referred to the representative board of the pool, which fixed the price and invited the companies in the pool to bid for the business. The company offering to pay the pool the highest bonus on the prospective business was awarded the contract. The bonus fund at the end of a year was divided among the pooling corporations on the basis of the proportionate part of the total business of the pool each member had transacted in "pay territory".

The Associated Pipe Works pool in part also illustrates the third principle on which pools have been commonly based, namely, the division of earnings. This type of pool was favored by the railways, the Chicago-Omaha pool being a notable example. Three railways operating between Chicago and Omaha—the Northwestern, the Bur-

lington, and the Rock Island—agreed in 1870 to pool their earnings. In the agreement it was stipulated that each road should retain 45 per cent of the earnings of its through passenger business and 50 per cent of its freight earnings. The rest was to be paid into the pool treasury and to be divided equally among the three roads. This pooling agreement lasted fourteen years.

Pools, as these illustrations show, were federations of business units. The member companies retained their independence except in so far as they delegated power to the pool. The facility with which pools could be organized, the flexibility in the scope of the agreement, and the power over trade conditions and prices which they afforded served to make pools popular among those seeking to establish capitalistic combinations. Moreover, pools furnished a convenient device for those wishing to combine temporarily, often secretly, and always without sacrifice of their independent status.

The chief disadvantage of the pool from the point of view of its member companies was its instability. Disputes frequently arose over the division of output and earnings, with the result that the pooling agreements were not renewed. In periods of depression, particularly, it was difficult to keep pooling agreements effective. The member companies were sorely tempted to get as much business for themselves as they could in order to curtail their losses. This usually necessitated lowering prices. Pools were temporary expedients, and as such they did not provide the stability essential to the development of great combinations.

A second important disadvantage of the pool for those seeking an effective form of combination lay in the fact that pooling agreements were non-enforceable in the courts. They were usually in violation of common-law principles concerning restraint of trade. Observance of pooling agreements accordingly depended entirely upon the honor of the contracting parties. This did not always suffice. Not only were pooling agreements non-enforceable under the common law, but they were directly prohibited in the field of railway transportation by the Interstate Commerce Act of 1887 and later in all economic fields, by the Sherman Anti-trust Act of 1890, whenever it could be shown that a pool was in restraint of trade. Even before the enactment of these statutory prohibitions, the spirit

of combination had found embodiment in what at first promised to prove a more stable form, the trust.

Trust. As the term was originally used, a trust meant a combination of corporations in which the stock of the constituent corporations was assigned to a board of trustees in order to create unified business control over the constituent corporations. A trust was not a corporation; it was a combination of corporations. The trustees held the assigned stock in trust (hence the name) and in exchange for it issued trust certificates, upon the basis of which the profits of the trust were divided. The trustees, through the stock they held, had the power to elect the directors of the corporations in the trust and consequently to control the business policies of the combination, regulating both volume of output and price. The Standard Oil Trust, organized in 1882, was the pioneer trust, but it was soon followed by trusts in sugar, whisky, and cotton-seed oil. The organization of trusts by use of the trustee device was abandoned soon after 1890 very largely as a result of an adverse court decision in the celebrated sugar trust case (*New York v. North River Sugar Refining Company*).

Trusts had certain obvious advantages over pools as a form of combination. While pools were unstable and temporary, trusts were intended to be permanent. While in the pool management was decentralized, in the trust it was highly centralized, which fact greatly increased the economic power of the trust. The great disadvantage of the trust, from the point of view of its proponents, was its uncertain status under the law and before the courts. The worst fears of those interested in the success of the trusts were confirmed by the court decision just mentioned. The State of New York had brought action under the common law against the North River Sugar Refining Company, a member of the sugar trust, contending that the company had exceeded the powers of its charter when it gave control over its stock to the sugar trust and demanding that its charter be forfeited. The court sustained the contention of the State that the company had exceeded its legal powers in helping create a trust which was in effect a partnership of corporations. This decision was followed by similar decisions and by much hostile anti-trust legisla-

tion, both federal and State, all of which resulted in the dissolution of the trust—and the reincarnation of the spirit of combination in still other forms.

While the trustee device of the trust form of combination has disappeared, the name "trust" has survived. Popularly, "trusts" today mean any form of business organization, whether holding companies or mergers, large enough substantially to control its field. "Trusts", in the popular mind, usually mean industrial monopolies.

Holding companies. One successor of the trust in the favor of men seeking to establish effective forms of combination was the holding company. A holding company is a corporation which owns a controlling share of the stock of the corporations in the combination. The constituent corporations are subsidiaries of the holding company. They have their own officers, but these are elected and their policies are controlled by the holding company. The subsidiary companies may compete in efficiency, but rarely in price. Some holding companies have been merely managing companies, such as the Northern Securities Company, organized in 1901 for the purpose of controlling the Northern Pacific and Great Northern Railroads, which together had already acquired control of the Burlington. More commonly, holding companies are also operating companies. When the Standard Oil Trust was dissolved in 1892, it was divided into twenty principal corporations, the majority of the stock of each being held by the same persons, the nine trustees of the former Standard Oil Trust. After a period of years, during which these corporations worked in perfect harmony through a "community of interests" arrangement, the decision was reached to reorganize the combination by use of the holding company principle. Accordingly, in 1899 one of the twenty corporations, the Standard Oil Company of New Jersey, increased its stock from \$10,000,000 to \$110,000,000 and exchanged its stock for the stock of the nineteen other corporations. The Standard Oil Company of New Jersey thus became primarily a holding company of the stock of the twenty corporations in the combination. This number had increased to thirty-eight by 1911, when the combination was again dissolved. The Standard Oil Company of New Jersey, while a holding company, also continued

its operations in the refining and distributing of oil. The holding company form of combination has persisted from the late nineties to the present time.

The holding company appealed to its promoters for a variety of reasons. Like the trust and unlike the pool, it was a stable form of combination. Like the trust it offered the advantage of centralized control. What is more, it was an easy form of combination to establish. The promoters had only to buy the stock of the desired companies in the open market until they had acquired a controlling share. The chief business advantage of the holding company, however, lay in the concentration of control which it made possible. A company holding a little more than half of the stock of another company had control over it, and sometimes much less gave practical control. Since holding companies were often pyramided, it was possible for a relatively small amount of capital to control a much larger amount. The Van Sweringen brothers, for example, originally interested in the Nickel Plate railway and subsequently in the Chesapeake and Ohio, so interlocked their companies that an investment of less than twenty millions of dollars controlled railroads whose combined assets amounted to over two billions.⁵ The H. M. Bylesby Company, through its control of a holding company known as the Standard Power and Light Company, with "an equity interest of \$3,000,000, or less than three-tenths of 1 per cent of the whole, was able to control \$1,200,000,000 of assets" of the Standard Gas and Electric Company system.⁶

From the legal point of view the holding company was favored because it gave promise of proving invulnerable to such attacks as had been directed against the pool and the trust. Unlike the pool and the trust, the holding company was an independent corporation, rather than merely a combination of corporations. While under the common law it was beyond the powers (*ultra vires*) of a corporation to hold stock in other corporations (at least no court had sanctioned it and some courts had condemned it), some States enacted laws specifically authorizing the holding of the stock of one corpora-

⁵ A. A. Berle, Jr., and G. C. Means, *The Modern Corporation and Private Property* (New York: The Macmillan Company, 1933), p. 73.

⁶ James C. Bonbright and G. C. Means, *The Holding Company* (New York: McGraw-Hill Book Company, Inc., 1932), p. 116.

tion by another. New Jersey took the lead in 1889 and 1893. Other States, notably Delaware, Maine, West Virginia, and New York, followed suit, partly in order to share with New Jersey the income to be derived from incorporation fees and corporation taxes.

Such general authorization of intercorporate stockholding proved a great impetus to the combination movement. After the close in this country in 1897 of the period of depression which had begun with the panic of 1893, there developed a combination movement never equaled before or since. The holding company was the chief means for effecting these capitalistic combinations. In railway transportation, in the field of the telephone and telegraph, among the municipal public utilities, in mining, manufacturing, and trade, everywhere holding companies were organized and usually thrived. Great railway systems like the New York Central lines are held together by the holding company device. The American Telephone and Telegraph Company, the United States Steel Corporation, and the North American Company are conspicuous examples of combinations built up by means of holding companies.

Mergers. After the breaking-up of the trusts, a second line of development lay in the actual consolidation of the previously separate corporations into a single corporation. Sometimes this fusion took the form of a merger; at other times, of an amalgamation. A merger occurs when one corporation buys up all the stock of other corporations and thereupon dissolves the constituent corporations. It is a corporate union of several existing corporations. In the merger there are neither nominally independent corporations as in the trust, nor subsidiary corporations as in the holding company. There is only the single corporation that has completely absorbed all the rest. An amalgamation takes place when a new corporation is formed for the specific purpose of completely absorbing certain constituent corporations. In the final result there is no difference between mergers and amalgamations, and consequently it is not surprising that the two terms are largely used interchangeably to designate consolidations in which there has been complete fusion of previously separate corporations. While the earlier mergers were brought about without resorting to the use of the holding company principle, in recent years it has frequently happened that the absorbing company has

first gradually increased its stockholdings in the companies it desired to acquire, then become the holding company, and finally effected a complete fusion by dissolving its subsidiaries. Such was the procedure of the General Electric Company in some of its consolidations. It was like the proverbial camel that soon filled the entire tent. The American Tobacco Company and the American Sugar Refining Company, incorporated in New Jersey in 1890 and 1891 respectively, and the International Harvester Company, organized in 1902, are other examples of mergers. From approximately 1890 to 1900 mergers were the most common form of combinations. From 1900 to 1904 holding companies were the more popular. In the latter year the Supreme Court's decision ordering the Northern Security Company dissolved cast some doubt upon the legality of the holding company principle. This decision gave renewed impetus to the complete merger movement, since it seemed improbable that mergers representing a complete fusion of properties could be as readily or successfully attacked in the courts. The elder J. P. Morgan is reported to have said that one cannot unscramble scrambled eggs. Since 1904 numerous decisions of the Supreme Court have shown that while neither the holding company nor the merger is illegal *per se*, neither is legal when organized to achieve some illegal object, such as the restraint of trade.⁷ Holding companies and mergers continue to survive. Indeed, some combinations are both mergers of previously separate corporations and at the same time holding companies in still other corporations.

The distinctive advantage which the merger has over the holding company is that it constitutes a single unified business, rather than a complex series of interlocking business units. In achieving this very advantage, however, it sacrifices the individuality of the constituent companies, the maintenance of which is often most desirable in order to retain local good-will and to meet various local conditions.

Informal agreements. Pools, trusts, holding companies, and mergers all represent formal combination agreements, in some of which the combining corporations retained their identity, and in at least one of which they lost it. Throughout the combination

⁷ Cf. Chapter XXXIII.

period, and increasing with the growing hostility of the public and the courts toward the combinations, there have been informal agreements, communities of interest, or gentlemen's agreements which have often proved very effective temporarily. Perhaps the most celebrated case of such "understandings" is furnished by the Gary dinners, as they came to be called, held intermittently from 1907 to 1911. Concerning the effectiveness of such "understandings" the Stanley Investigating Committee of the House of Representatives reported as follows:

We think the conclusion is irresistible that the Gary dinners were instituted as a means of conveying to the entire iron and steel industry information as to what the attitude of the United States Steel Corporation was upon the questions of output and prices and of impressing upon all engaged in the industry that it was the part of wisdom and prudence to govern themselves accordingly. We further believe that by this means prices were maintained, output restricted, competition stifled, and trade restrained, just as certainly, just as effectively, and just as unlawfully as had been done under the discarded pooling agreements of former years.⁸

PURPOSES OF COMBINATIONS

In the preceding discussion of the combination movement and of the various forms which it has taken, something has already been said concerning its purposes. Some of these have been legal, while others have proved contrary to public policy. Some have been attained, and others have failed of realization.

More often doubtless than is commonly supposed, the basic purpose in effecting combinations has been psychological rather than economic. Ambitious and successful business and industrial leaders took pride and pleasure in becoming railway kings, monarchs of finance, builders of far-flung industrial empires. Such combinations gratified the race-old instinct of self-assertion and domination over others. To organize a great combination was at once to give eloquent testimony of one's creative genius and also to provide a means of satisfying one's desire for power.

Advantages of large-scale management. But, after all, the driving and sustaining forces in the combination movement have been

⁸ *Report of the Committee on Investigation of United States Steel Corporation*, House Report No. 1127, 62d Congress, 2d Session, 1911, Vol. VIII, p. 126.

economic rather than psychological. One of the most apparent purposes in the organization of combinations has been to procure the utmost advantages of large-scale management. Combination has usually been unnecessary to secure the advantages of large-scale production, for most combining units had long since achieved all of the advantages of large-scale enterprise. But combinations greatly extended the scope of men capable of efficient large-scale management. The linking-up of independent enterprises under strong, capable managements usually proved of advantage to the combining corporations, and by no means necessarily of disadvantage to the public. Combinations in the public utility field, for instance, have at times, though by no means always, improved the credit position of the companies and made possible better service to the public. But the mere size of combinations has also at times proved a great handicap in actual business competition. Small units are more adaptable to changing economic conditions. What is more, those responsible for the management of large combinations have been obliged to depend upon subordinate officials for the execution of their policies and the establishment of personal contacts. This often proved ineffective, particularly when such subordinates, limited in their powers of action, found themselves in active competition with the responsible heads of independent enterprises.

Elimination of competition. Another economic purpose of combinations has been elimination of competition: sometimes elimination of the wastes of competition, but more especially elimination of competition itself. Some combinations have eliminated certain forms of competitive waste, such as cross freights and some kinds of advertising. Of much greater importance to combinations, however, has been the hope that any given combination would obtain so commanding a position in its field as to discourage competition and thus, at least temporarily, to reap the fruits of monopoly. While the presence of a large combination in any industrial field does not preclude the possibility of competition, it does as a matter of fact inhibit much potential competition.

Regulation of output and maintenance of prices. The ultimate objective of most combinations has been to regulate output and to maintain prices. Competition led to great price irregularities and, in

periods of severe price-cutting, often resulted in the ruin of many businesses. Combination was in part an attempt to stabilize prices for the benefit of the combining units. In the early days of the combination movement, when combinations temporarily dominated their fields they frequently raised prices above the previous competitive levels. This, however, except in the case of combinations based upon the existence of natural or legal monopoly, inevitably brought new competitors into the field, attracted by the hope of unusual profits. In the later stages of the movement, combinations were more content to stop short of actual monopoly and to enjoy the advantages that arose from holding a dominating position in the industry. A combination which controls so large a part of the output that the buying public is dependent upon it for a considerable part of its supply does not have to be a complete monopoly in order materially to affect the price of the commodity it has to sell. Its price policy is apt to guide its competitors. If the combination lowers prices, those outside the combination must follow suit; if it raises prices, they usually welcome the opportunity to do the same. A combination, therefore, strongly entrenched in any industrial field, can have a steady influence upon market prices.

Anticipated profits. Finally, it must be noted that the profits to be made in the successful establishment of large combinations were a powerful incentive in their creation. First of all, there were the anticipated profits of the promoters and financiers, who were actively concerned in bringing about combinations. In the organization of the United States Steel Corporation, for instance, the promoting syndicate is said to have reaped a profit of \$62,500,000, 20 per cent of which went to J. P. Morgan and Company, the managers of the syndicate.⁹ Then, too, the business units entering the combination expected to make a handsome profit on the sale of their properties to the "trust". What the "trust" itself, once established, hoped for was the receipt of monopoly profits, even if the monopoly was bound to be partial rather than complete, and temporary rather than permanent. Since almost every large combination was greatly over-capitalized at the time of its organization, it is not surprising

⁹ Report of the U.S. Commissioner of Corporations on the Steel Industry, Part I (1911), p. 244.

that the profits of many never went beyond the "paper profits" stage. On the other hand, some combinations like the United States Steel Corporation, by putting their surplus earnings back into the business, have gradually built up capital values strong enough to carry their outstanding capitalization and thus to realize the fondest dreams of their most ardent promoters.

In one form or another and for a variety of reasons capitalistic combinations persist in our modern economic life. Some serve the public interests better than competitive enterprise possibly could; others are detrimental to the best interests of the public. What to do with combinations and how to do it most effectively, whether the policy be one of suppression, prevention, or regulation, is still one of the most difficult problems in economic politics.¹⁰

¹⁰ For a discussion of government control over combinations, cf. Chapters XXXIII and XXXIV.

CHAPTER VII

LABOR ORGANIZATIONS

HISTORICAL BASIS OF UNIONISM

Organized capital in modern economic society is confronted by organized labor. Powerful corporations today usually must choose between dealing with powerful labor organizations or fighting against the unionization of their plants. Labor organizations, however, are of comparatively recent origin. They are contemporaneous with capitalism. When the journeyman of the guild system could no longer look forward to becoming a master workman, and when the artisan of the domestic system ceased to be an independent producer, the foundations for unionism were laid. It was during the period of the domestic system that the functions of the merchant capitalist who supplied the market, and of the artisan who created the goods, were first sharply separated. While at first the merchant capitalist merely marketed the finished products of the scattered artisans, he soon came to dominate the entire productive process. With the advent of the changes associated with the industrial revolution he became the owner of work place, equipment, and raw materials, as well as director of industrial operations and seller of finished goods. One-time independent artisans were now his employees and more or less permanent wage-earners. With workers daily massed in factories, and with no other future before them than working for wages, the conditions were ripe for the development of an organized labor movement. In the beginning its purpose was largely defensive, designed to overcome the enormous advantage which the employer had in bargaining. More recently, organized labor has taken a leaf from the book of military experience and has learned that the best defensive is often a vigorous offensive. Labor today knows what it wants and how to get what it wants even though the contest has often gone against it.

STRUCTURAL ORGANIZATION OF UNIONS

Types. Structurally, labor organizations are of three types: craft-unions (trade-unions), industrial unions, or labor-unions. A craft- or trade-union consists of workers all engaged in a single craft, such as carpentry. It is the most homogeneous of the three types, because all its members have a common trade interest. An industrial union is composed of workers in a given industry, such as mining, without reference to the several crafts contained within the industry. Since industrial unions disregard craft lines, the basis of membership is broader than in craft-unions. These two types, craft and industrial, are antagonistic and mutually exclusive. They represent rival plans for the effective organization of workingmen into unions. Labor-unions, in the specific rather than generic use of the term, are heterogeneous organizations, including workers of different crafts and various industries who work in a given locality. The only reason for their existence is that there are not always sufficient workers to organize effective craft or industrial unions. As soon as numbers warrant it, this is done.

In recent years there has been some question as to which form of labor organization best serves the interests of labor. The predominant form in the United States for the past fifty years has been the craft-union. This form of organization has the merit of associating skilled workers, who are employed in more or less clearly defined occupations, have a common interest in their craft, have the same social standing, and are apt to form a cohesive and strong organization. The strength of the craft-union form lies in its homogeneity and cohesiveness.

The craft-union, however, has not proved to be an effective means of organizing workers who have no clearly distinguishable craft lines. Semi-skilled and unskilled workers find no place in a craft-union. As a result they remain largely unorganized. With the growth of the mass-production industries and the introduction of machinery, the number of semi-skilled and unskilled workers has very greatly increased. Advocates of the industrial union form of organization claim that in such mass-production industries, particularly, workers can best be organized along industrial lines. The industrial union form

of labor organization, they say, by uniting all the workers in a given industry can bring together the mass of semi-skilled and unskilled workers as well as the skilled, and provide them all with a means for improving their bargaining power. Workers in mass-production industries will thus be able to confront organized capital as a unit and command attention because of their power to tie up all plant operations. It is further claimed that the industrial union, in addition to providing a means for organizing the unskilled workers now largely unorganized, also has the beneficial result of eliminating jurisdictional disputes by preventing one group of workers from being pitted against another, and helps to secure improved working conditions for all rather than for a selected group of workers. Whether the industrial union form of organization will accomplish for labor all that some of its advocates claim, it is impossible to say. It does, however, appear to offer the most effective form for the organization of those workers who can find no place in the craft-unions.

Incorporation. Labor organizations are usually unincorporated voluntary associations. A generation and more ago many labor leaders favored incorporation, but now such plans have been almost completely abandoned. Some unions have incorporated for special purposes, such as the holding of their buildings or the carrying of their insurance funds, but as bargaining organizations they have remained voluntary associations. Compulsory incorporation of labor organizations has sometimes been urged as the only effective means of increasing the responsibility of unions for their acts. Union labor has resisted such action because it would jeopardize union funds, which might be seized as damages for breach of contract, and consequently weaken unions as fighting organizations. Court decisions, however, have laid down the principle that the funds of even unincorporated associations may be taken in the settlement of damage suits. A British court in the famous Taff Vale Railway Company Case of 1901 imposed a fine upon an unincorporated union for damage done the railway in a labor dispute. It took a special act of the British Parliament in 1906, the so-called Trades Dispute Act, to overcome the effect of this decision and to establish certain limits within which union labor might be able to carry on

the economic struggle without rendering itself legally liable. More recently the Supreme Court of the United States, in the Coronado Coal Company Case of 1922,¹ held that the defense of the union (in this case the United Mine Workers of America), alleging that it was not legally liable because it was an unincorporated association, was not valid. While the court held that the evidence did not show that the union was guilty of restraining interstate commerce, the court went out of its way to declare that, had the evidence sustained the charge, the union, though an unincorporated association, would have been liable and its funds could have been attached. The decision was apparently intended as a warning. On the whole the argument that labor-unions should incorporate does not seem convincing. The corporate form of organization was authorized by the state to enable people to engage in business for profit under the rule of limited liability. Labor organizations exist for quite another purpose. While as individuals the members of labor organizations would be better protected under the limited liability of the corporate form than they now are as members of voluntary associations, the effectiveness of unions as bargaining associations might be seriously crippled. Those suffering actual damage as a result of illegal acts committed by members of unions have redress in the courts, and under the law as interpreted by the Supreme Court the funds of even unincorporated associations may be seized for such purposes.

Federation. Both craft and industrial unions are organized locally and, wherever possible, nationally. While historically local unions came first and were later built up into national organizations, today the characteristic movement is in the other direction. The national unions have paid organizers whose business it is to establish unions among unorganized workers. "The local thus organized", as Hoxie says, "is a product of the international² or national, chartered by it, largely directed by it, bound to obey it in matters of policy and method or suffer revocation of charter, loss of counsel

¹ United Mine Workers v. Coronado Coal Company, 259 U. S. 344.

² The term "international" as here applied to unions means unions organized in the United States and Canada or Mexico.

and financial support in time of trouble—all of which ordinarily means speedy dissolution.”³ Local unions were once a sort of workingmen’s club. They are today very largely the local representatives of national unions. While the local union retains a considerable degree of autonomy with reference to such matters as the negotiation of local agreements, the policies and strategy of organized labor are largely shaped by the national unions. Local unions are ordinarily designated as branches or chapters of the national organization, such as Local Union 314, United Brotherhood of Carpenters and Joiners of America.

Most of the national or international craft or industrial unions have been federated and have become the backbone of a number of important organized labor movements.

THE AMERICAN FEDERATION OF LABOR

Origin. The American Federation of Labor is the most important and influential organization that American workingmen have created. At a convention held in Pittsburgh in November, 1881, composed of about 100 delegates representing more than 250,000 workingmen, a permanent organization was effected, known as the Federation of Organized Trades and Labor Unions of the United States and Canada. Five years later this society was reorganized as the American Federation of Labor, which, however, dates its origin and numbers its annual conventions from the earlier organization effected in 1881.

Membership. From the beginning the American Federation of Labor has been a rather loose federation of national and international craft-unions. Under the compulsion of circumstances, however, other structural types have been included in the federation, whose organization, fortunately for labor, has proved loose and flexible enough to absorb them all. More recently the tendency has been away from strict adherence to the craft-union principle. Several large industrial unions have become members of the federation. But

³ R. F. Hoxie, *Trade Unionism in the United States* (New York: D. Appleton and Company, 1917), p. 120.

the backbone of the American Federation of Labor is still the powerful national craft-unions.

Individual membership in the federation is indirect. As its name suggests, the American Federation of Labor is a federation of unions. The 2,608,011 dues-paying members of the federation in 1934 were in reality members of local unions, directly or indirectly affiliated with the federation. The labor groups represented in the federation are of five types. Dominating the organization are the *national and international unions*, which the local unions, wherever possible, are expected to join. The International Association of Machinists, whose branches are craft-unions, and the United Mine Workers, whose branches are industrial unions, represent the opposite types that have found room in the federation. The national unions retain complete autonomy over their own affairs.

Ordinarily local unions are affiliated with the federation through their own national organization. If no such organization exists, however, they may hold membership in the federation directly. Such local unions may be composed of the workers in a single trade, or they may consist of workers in different trades, if there are not enough to organize distinct local trade-unions. The egg inspectors' union of Chicago is an example of a *local trade-union*; union Number 17614 of Reno, Nevada, of a *federal labor-union*.

Still another subordinate group holding membership in the American Federation of Labor consists of the *departments*. These are the direct result of conflicts among the craft-unions over jurisdiction and of the weakness of a single craft-union in dealing with employers. To overcome such handicaps departments and local department councils have been organized. Delegates from the various local unions of a given industry or of closely related industries come together in the local department councils where unity of action can be secured. Such councils, for instance, have been organized in the building and printing trades. The departments do on a national scale what the councils do on a local scale. The American Federation of Labor itself organized the national unions of certain industries into a number of federal units in order to avoid jurisdictional disputes and to promote coöperative effort among them. Such de-

partments today exist among railway employees,⁴ in the building trades, in the metal trades, and in the union label trades. These four departments are members of the federation.

The federation principle has also been applied to the organization of labor in cities and states. *City central labor-unions* and *State federations of labor* are composed of delegates representing the various organized labor units in city and State. Both the city central labor-unions and the State federations of labor are directly affiliated with the American Federation of Labor.

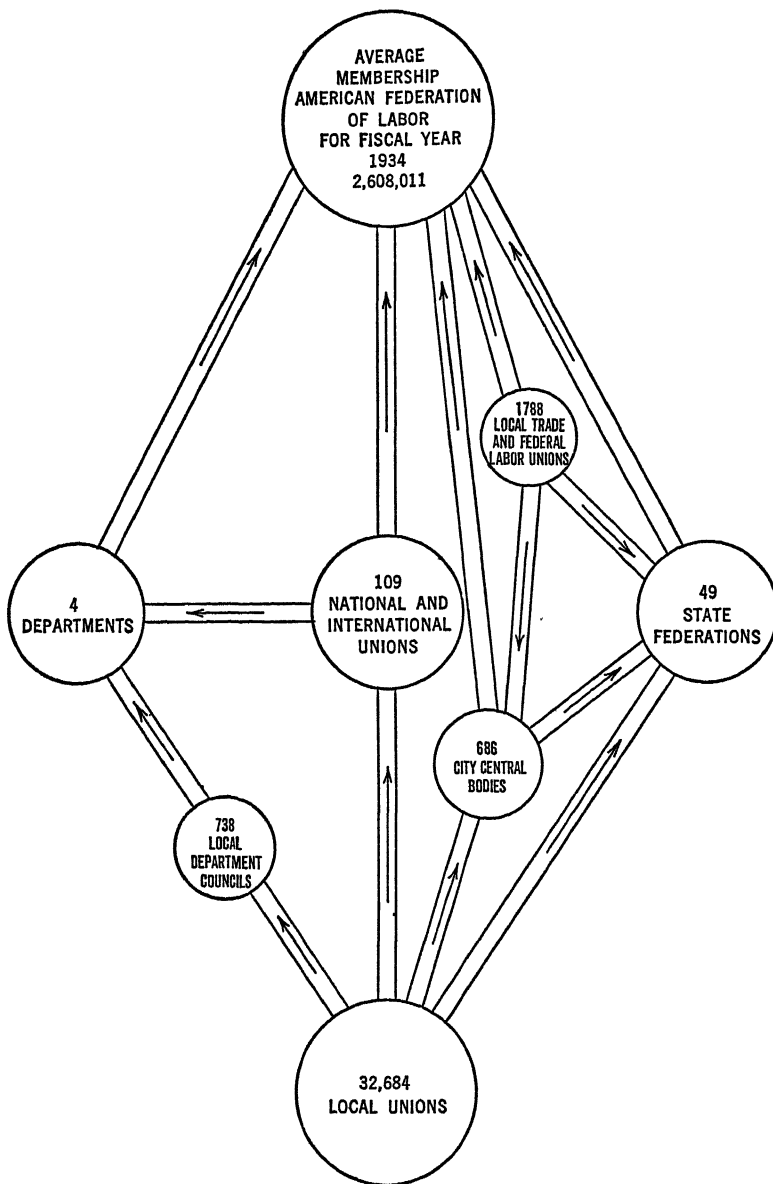
At a recent annual convention of the federation its membership included 109 national and international unions, 1,788 local trade- or federal labor-unions, 4 departments, 686 city central bodies, and 49 State federations (including the District of Columbia). The number of local unions in the membership was 32,684, and the average membership was 2,608,011.⁵ The accompanying diagram shows the structural organization of the American Federation of Labor.

Government. The sovereign governing body of the federation is the annual convention. This is a legislative gathering composed of delegates representing the five types of labor groups just described. The national unions are allowed one delegate for each 4,000 members or fraction thereof; other labor groups are allowed one delegate each. In the 1934 convention the national unions had 258 of the 439 accredited delegates and cast 24,906 of the 25,305 votes. The real legislative power, as is quite proper, resides in the national unions. The executive officers of the federation consist of the president, eight vice-presidents, a secretary, and a treasurer, all of whom are annually elected by the convention. Together with seven other elected members, they constitute the executive council and direct the activities of the federation.

Purpose. The purpose of the founders of the federation was the "formation of a thorough federation, embracing every trade and

⁴ The railway brotherhoods, including the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Engineers, the Order of Railway Conductors, and the Brotherhood of Railroad Trainmen, are members neither of the American Federation of Labor nor of the Railway Employees Department.

⁵ Statistics are for the year ending August 31, 1934.



[Based upon *Report of the Proceedings of the Fifty-third Annual Convention of the American Federation of Labor*, 1934, p. 33.]

labor organization in America, organized under the trade union system".⁶ The federation is the organizing agency in the union labor field. It establishes new unions and federates those already in existence. It mediates inter-union jurisdictional disputes. It serves as the publicity bureau for organized labor, helping the labor press, seeking the support of public opinion, and stimulating the use of union label products. It functions as a legislative lobby, maintaining permanent headquarters at Washington. While the calling of strikes is outside the jurisdiction of the federation, it renders what moral assistance it can in the successful prosecution of strikes regularly called by the unions.

Strength and weakness. One of the characteristics of the American Federation of Labor, to which much of its success is due, is its flexibility. Although established as a federation of craft-unions, it has for years made room for industrial unions as well although it has not generally fostered such unions. The federation has never had a hard and fast theoretical program to which it has been committed though the heavens fall. On the whole it has very successfully pursued an opportunistic course. No matter how adaptable an organization may be, however, it can hardly hope for large success without the right leadership. It has also been the good fortune of the American Federation of Labor to have had capable and wise leadership. Samuel Gompers, for every year except one from the reorganization of the federation in 1886 to his death in 1924, served as the president of the federation. Mr. William Green has served continuously since Gompers' death.

The success of the federation, however, has not been unqualified. In spite of decades of steady effort, less than 20 per cent of the wage-earners of the country were organized in 1920, and not all of these were affiliated with the federation.⁷ Since that time there has been a falling-off in membership due to severe depressions beginning in 1920 and 1929. Skilled manual workers are much more fully organized than either the so-called "white collar" workers or the unskilled workers. The failure of the federation to organize un-

⁶ Preamble to constitution of the American Federation of Labor.

⁷ Leo Wolman, *The Growth of American Trade Unions, 1880-1923*, A Report of the National Bureau of Economic Research (New York, 1925), p. 86.

skilled workers has been due to the fact that these workers cannot fit into the craft-union form of organization. At the San Francisco convention, held in 1934, the federation committed itself to aid in the organization of workers in the mass-production industries by granting charters for industrial unions where these would not conflict with existing craft organizations. The federation, however, has not actively encouraged the formation of such unions. It remains a fact that after more than forty years of effort the federation has failed to organize more than a small percentage of the wage-earners of the country. What is more, some of the most capable and powerful organized workers, such as the members of the railway brotherhoods, have chosen to remain outside the federation. It has often failed, too, in its struggle both with capitalistic management and with refractory unions. But nevertheless, in an economic situation calling for a practical fighting body, the American Federation of Labor stands today as the most effective general organization that American workmen have been able to create.

INDUSTRIAL WORKERS OF THE WORLD

An altogether different form of labor organization is represented by the Industrial Workers of the World. In comparison with the American Federation of Labor it is of negligible importance. It has attracted attention chiefly because of its revolutionary objectives and methods rather than because of any real strength that it has developed as a labor movement. It was conceived as a protest, and a movement of protest it has always been. Its founders were out of patience with what they considered the conservative temper of the American Federation of Labor, and they believed the craft-union principle on which the federation was based a poor foundation for a militantly successful labor movement. They believed that any far-reaching and permanent improvement in the status of workingmen could only come through the organization and federation of industrial unions and the ultimate abolition of the capitalistic system. The preamble of the constitution adopted in 1905 unmistakably sets forth the purpose of the organization and reveals something of its spirit. It compels and deserves attention.

The working class and the employing class have nothing in common. There can be no peace so long as hunger and want are found among millions of working people and the few, who make up the employing class, have all the good things of life.

Between these two classes a struggle must go on until the workers of the world organize as a class, take possession of the earth and the machinery of production, and abolish the wage system.

We find that the centering of the management of industries into fewer and fewer hands makes the trade unions unable to cope with the ever growing power of the employing class. The trade unions foster a state of affairs which allows one set of workers to be pitted against another set of workers in the same industry, thereby helping defeat one another in wage wars. Moreover, the trade unions aid the employing class to mislead the workers into the belief that the working class have interests in common with their employers.

These conditions can be changed and the interest of the working class upheld only by an organization formed in such a way that all of its members in any one industry, or in all industries, if necessary, cease work whenever a strike or lockout is on in any department thereof, thus making an injury to one an injury to all.

Instead of the conservative motto, "A fair day's wages for a fair day's work", we must inscribe on our banner the revolutionary watchword, "Abolition of the wage system."

It is the historic mission of the working class to do away with capitalism. The army of production must be organized, not only for the every day struggle with capitalists, but also to carry on production when capitalism shall have been overthrown. By organizing industrially we are forming the structure of the new society within the shell of the old.⁸

To the down-trodden and discouraged there is undeniably something alluring about this program and procedure. Indeed, whatever strength the I.W.W. movement has been able to gather is primarily due to the pulling power of its ideal of the unionization of all workers in all industries and secondarily to the very vagueness of the methods to be pursued in the attainment of its ends. Many embittered and rebellious workingmen find themselves irresistibly captivated by the vision of a conquering working class. Just how this is to come about seems rather nebulous and uncertain, but that matters not. In a strongly emotional movement definiteness of procedure is not a first consideration. To be sure, there will be direct action, not political action. The general strike is proclaimed as the most promising form of direct action for accomplishing the overthrow of the capitalist system. Some day when the workers of the world have all

⁸ Preamble to the constitution of the Industrial Workers of the World.

been brought together into industrial unions, and these have been united into one gigantic central organization, the word will be flashed from headquarters of the Industrial Workers of the World that the great day of liberation has arrived. Then the workers will lay down their tools, all wheels of industry will cease turning, capitalists will have to surrender to the demands of labor, and the workers of the world will at last take possession of the earth and the fullness thereof. To some this has proved an enticing vision. To others it has been terrifying. To most it has seemed fantastic and chimerical.

Whatever the limitations of the program and procedure of the Industrial Workers of the World may be, the movement has never made any substantial headway among the highly trained workers of this country. While the membership of the American Federation of Labor numbers millions, that of the Industrial Workers of the World does not exceed thousands. The organization has been further handicapped by lack of continuous capable leadership and by the presence of internal dissensions which have sapped much of what strength there was.

PRESENT-DAY IMPORTANCE OF UNIONISM

Whatever specific form the labor movement may have taken at a given time and place, unionism is indispensable to labor. Unions are both bargaining and fighting organizations. Their primary function is peaceful bargaining with the employer concerning wages and other conditions of work, but they can, if the occasion demands, become fighting organizations and carry on a sustained strike or boycott for the realization of their ends. As bargaining associations, unions represent the most effective agency labor has been able to create to equalize its own bargaining powers with those of the employer. Whenever workers are unorganized and lack strong, capable leadership, they usually are at a decided disadvantage in negotiating terms with the employers. Wages, for example, though influenced by the productivity of labor, are not set automatically at a figure determined by what workers produce. There is often a considerable spread between what the employer can pay, if he must, and the wages that he actually pays. This margin can sometimes be appreciably

narrowed through skilful bargaining. Indeed at times bargaining has been so effective as to advance wages at the expense of profits. As fighting organizations, unions through the contributions of their members provide the financial resources, the aggressive leadership, and the strategy for the conflict with employers.

But unions are more than associations for bargaining or fighting with employers. They are powerful agencies pressing for the enactment of legislation favorable to labor. They often provide limited insurance benefits for their members. They sometimes operate employment agencies to facilitate finding jobs for members of the union. They stimulate educational and recreational activities. Directly and indirectly, they do everything possible to advance and preserve the standard of life of the groups they represent, knowing that in the long run the standard of life is the principal determinant of the future supply of labor and of the level of competition among workers.

Unionism is not without its costs to the individual workingman. Since the essence of unionism is the substitution of group action for individual action, the individual must learn to subordinate his own interests to the interests of his group and to forego freedom of independent action.

That unionism seeks to create a monopoly of the labor supply and thereby to dictate wages is one of the most common criticisms directed against it. It is said that as a monopolistic movement it is opposed to the best interests of the consuming public and is no more defensible than any other form of monopoly. It must be admitted that the complete unionization of industrial workers in the hope and expectation that wages will be raised thereby is one of the most cherished ambitions of the organized labor movement. But the benefits of such monopolistic control, should it ever be achieved, would redound to all the workers, who together constitute a large percentage of the consuming public. As long as membership in the unions is open to all workers in the organized trades or industries, the monopolistic aspirations of unionism do not constitute a serious social problem.

The numerical strength of unions fluctuates with alternating periods of prosperity and depression. At the peak of post-war pros-

perity in the United States in 1920 union membership reached its own peak of 5,110,800, from which it has dropped off to less than 3,000,000 in 1934. In spite of its rapid though uneven growth, union membership has never included more than a maximum of about 22 per cent of the estimated number of workers eligible to join. But while the unions represent only a minority of the workers of the country, their influence and power are far greater than their relative numerical strength. They are most strongly established in some of our most strategic industries, such as mining, transportation, the building trades, and some branches of manufacturing, the regular and uninterrupted operation of which is essential to the economic welfare of all the people. Here they are in a position to set up standards and develop practices which not only affect their own status but also are not without influence upon the economic life of workers outside their ranks.

CHAPTER VIII

LABOR-UNION POLICIES

Labor organizations exist for the purpose of protecting the rights and advancing the interests of wage workers. The status of the worker in industry, particularly with reference to such important questions as the hours he shall work and the wages he shall receive, is a matter of contractual agreement with the employer. Bargaining alone, the industrial worker is often overwhelmed by conditions beyond his control or beaten by powers greater than his own. Bargaining collectively, he usually at least can get a hearing, and he has the chance of driving a better bargain. Although wages are determined by all the forces of the market which affect the demand for and the supply of the services of labor, it is true that wages do not set themselves. Labor organizations are among the human agencies that help to set the exact level of wages within the broad limits determined by the market. During the century or more of labor-union history certain policies have been developed designed to promote the best interests of labor. Some of these have gradually commended themselves to employers and the public generally; others are still distinctly matters of controversy.

THE POLICY OF COLLECTIVE BARGAINING

Easily the most important and inclusive of the policies of organized labor is the policy of collective bargaining. Indeed, the primary purpose in effecting labor organizations is to enable workmen to bargain collectively. Collective bargaining exists in an industry when its organized employees through their own selected agents make an agreement with the employer which is binding upon both parties. Such trade agreements ordinarily include stipulations concerning wages, hours, and conditions of work. The following extracts from a trade agreement of the International Association of

Machinists for the Chicago district illustrate some of the more important provisions of a representative trade agreement.

Section 3. Eight hours shall be the standard workday, . . . except on Saturday, when work shall cease at 12 o'clock noon.

Where night shifts are worked, not more than 40 hours per week shall be worked in five shifts.

Men employed on night shift shall receive the same compensation for 40 hours as they would receive for 44 hours on day shift.

Section 4. Double time shall be paid for all time worked over the regular day and night schedule and for Sundays and legal holidays.

If overtime is worked on either day or night shift, there shall be at least 30 minutes intermission before overtime takes place.

No overtime shall be worked on nights when shop meetings are to be held.

In case of depression in trade the hours shall be shortened all that is necessary to keep the normal force employed.

Section 5. Apprentices shall not be less than 16 and not over 21 years of age at the beginning of their apprenticeship term, . . . and be employed on day force only.

The number of apprentices shall not exceed one to every five journeymen machinists, nor shall they be permitted to work overtime.

Apprentices shall be required to attend a continuation school for a period of not less than eight hours every two weeks. They shall suffer no loss in wages for school attendance.

Apprentices in their last year of service may be sent on outside jobs with journeymen machinists in the ratio of one to each job.¹

Invariably in such agreements there are stipulations concerning the minimum wages to be paid, and frequently there are provisions for the settlement of disputes between employers and employees.

In the beginning the very right of labor to bargain collectively was challenged; today it is generally conceded, even though some do not like the results. While the interests of labor and capital are in some respects identical, it is equally true that in other respects they are antagonistic. They are identical in so far as the creation of a value-product is concerned; but they are often antagonistic in the distribution of that product. Collective bargaining is labor's means of protecting its interests in dealing with capital in the division of the product which is the result of their coöperative effort.

Weakness of individual bargaining. The individual working-

¹ U.S. Bureau of Labor Statistics, *Trade Agreements 1923 and 1924*, Bulletin No. 393 (1925), p. 71.

man is usually at a decided disadvantage in driving a bargain with his employer. In the first place, he generally has few, and sometimes no real, options. He may be jobless; having perhaps answered some "want-ad" in person, or "peddled" his services from gate to gate, he is neither mentally nor economically predisposed to discriminate very carefully as to the conditions of his employment. The particular job may be a matter of supreme importance to him, while the procuring of a given man is often of no importance to a prospective employer. To the laborer the job may mean bread; to the employer the procuring or loss of a given man may mean only a little more or less profit. In individual bargaining employer and laborer stand on different levels; the employer usually has many options, the laborer few if any. Second, the individual workingman is usually not in a position to take full advantage of the best market opportunities to dispose of his services. He is often ignorant of the very existence of superior opportunities, and even when he knows about them, quite as likely as not, is unable to act upon such information, for the mobility of labor is not comparable to the mobility of capital. Third, the individual workingman is a poor bargainer because he has a perishable product to sell. If he fails to dispose of services today that he is able and willing to render, he loses the value of those potential services altogether. Consequently, the hard-pressed laborer bargaining individually is often forced to accept the terms offered him by the man who controls the job, rather than to run the risk of being without a job. Fourth, the individual laborer usually has no reserve funds which enable him temporarily to withhold his services from the market. He must work or suffer privation. He has no waiting power.

Strength of collective bargaining. Collective bargaining is designed to overcome these weaknesses in the individual's bargaining powers. Where the one may be weak, the many may be strong. While collective bargaining can neither create alternative opportunities for work nor preserve perishable services, there are certain very advantageous things that it can do for labor. First, it can overcome the employer's indifference as to obtaining or retaining the services of men. An employer may remain indifferent over the prospect of dispensing with the services of a single workman, but he cannot af-

ford to remain indifferent when it comes to the question of retaining the services of a thousand or ten thousand men trained to do the work that he controls. Collective bargaining implies the power both to give and to withhold. Union labor can temporarily withhold its services (the period of suspension has sometimes run into months) because the unions make a practice of creating reserve funds with which to finance themselves during a bargaining struggle that involves suspension of work. Second, collective bargaining can substitute knowledge of the labor market for ignorance. Expert business agents, skilled in the art of negotiating agreements, can be employed by the unions to represent them in the wholesale selling of their services. Such procedure brings decidedly better results from their point of view than "peddling" their services from door to door.

Effects of collective bargaining. The chief effect of a system of collective bargaining, from labor's point of view, is the establishment of a standard rate of wages. Such standard rate is intended as a minimum, and not a maximum. This is the unionist's answer to the charge that collective bargaining levels wages, wiping out all differences in rewards for variations in efficiency. In practice, however, as far as wages on the hour-basis are concerned, employers find it difficult to establish classes according to competency, for labor leaders are very apt to regard such a measure as a menace to the solidarity of labor and a preliminary step to the reduction of the standard rate. For these reasons the standard or minimum rate often does become the maximum rate for all.

On the other hand, while the tendency of collective bargaining is to level wages per hour to the stipulated minimum, it is also true that this minimum under collective bargaining is higher than the average wage that would be obtained under a system of individual bargaining.

Those who object to any system of collective bargaining point out that its effect is to reduce all workers to a "dead level of mediocrity", and thus actually to promote inefficiency. It is contended that when the most efficient receives little, if any, more than is paid the least efficient workmen of a given group, the chief incentive for superior workmanship is destroyed. Inefficiency under such a system, it is said, becomes most evident during periods of prosperity

when the chances for unemployment are most remote. Organized labor answers the charge by saying that collective bargaining permits gradations of workers with payments of wages beyond the minimum, and that the employer is under no obligation to hire inefficient workers who cannot earn the minimum fixed in the collective wage bargain.

The legal right of collective bargaining. The right to bargain collectively is the essence of unionism. Labor has fought for this right through its organizations and has also turned to legislation for a clarification of its rights. In the United States two of the most recent and celebrated of such attempts were incorporated in the National Industrial Recovery Act of June 16, 1933, and the Wagner-Connery National Labor Relations Act of July 5, 1935.

The status of collective bargaining under the former was set forth in the highly controversial section of the act labeled 7a, which reads as follows:

(1) That employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection; (2) that no employee and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing.

Although the provision that "employees shall have the right to organize and bargain collectively through representatives of their own choosing" did not really confer any new rights upon labor, the formal recognition and sanction of the principle enormously enhanced the prestige of unions with the unorganized workers and increased their power in dealing with employers. Section 7a was not statute law; it became effective only when written into codes of fair competition, which when approved by the President had the force of law.

The National Industrial Recovery Act met with reversal when the Supreme Court in a unanimous decision in the *Schechter Poultry Corporation* case declared the vital section 3 of the act unconstitutional (May 28, 1935). The court held the code provisions

invalid because "the code making authority thus conferred is an unconstitutional delegation of legislative power" by Congress and because "the attempted regulation of intrastate transactions which affect interstate commerce only indirectly" is outside the powers of the federal government. The collective bargaining section (7a) of the act was not directly involved in the decision, but since it had to be written into the codes to be effective, and the code-making authority was unconstitutionally conferred, Section 7a of the National Industrial Recovery Act has lost practical significance as a legal foundation for the policy of collective bargaining.

The whole principle of collective bargaining, however, has been reaffirmed with added emphasis in the National Labor Relations Act. Curiously, it is again section 7 of the act which defines the rights of labor in this respect.

Sec. 7. Employees shall have the right to self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in concerted activities, for the purpose of collective bargaining or other mutual aid or protection.

In signing the act President Roosevelt said:

This Act defines, as a part of our substantive law, the right of self-organization of employees in industry for the purpose of collective bargaining, and provides methods by which the Government can safeguard that legal right. It establishes a National Labor Relations Board to hear and determine cases in which it is charged that this legal right is abridged or denied, and to hold fair elections to ascertain who are the chosen representatives of employees.

A better relationship between labor and management is the high purpose of this Act. By assuring the employees the right of collective bargaining it fosters the development of the employment contract on a sound and equitable basis. By providing an orderly procedure for determining who is entitled to represent the employees, it aims to remove one of the chief causes of wasteful economic strife. By preventing practices which tend to destroy the independence of labor, it seeks, for every worker within its scope, that freedom of choice and action which is justly his.

The Supreme Court early in 1936 had not yet passed on the constitutionality of the act.

THE POLICY OF THE CLOSED SHOP

There is doubtless no policy of organized labor about which there are more sharply divergent views than the policy of maintaining

the closed shop. To the labor unionist it seems the logical culmination of the labor movement and indispensable to its fullest success. To the employer it is apt to appear a vicious form of labor monopoly, intolerable in a competitive society.

Nature of open and closed shop. Organized labor favors the closed shop. Employers as a whole insist upon the open shop. Strictly defined, an open shop is a shop in which no discrimination is made, as far as employment is concerned, between union and non-union labor. The employer is free to hire anyone he chooses. In practice, however, the open shop frequently becomes an anti-union shop; it is closed to union labor by the employer. In speaking about the closed shop, what is usually meant is a shop that is closed through the initiative of organized labor rather than through that of the employer. At least two important kinds of closed shop must be distinguished: the closed shop with the open union and the closed shop with the closed union. In the former, non-union men may find employment, but as a condition of their continued employment they must join the union. In the latter, only persons already members of a union can be employed. It is at once apparent that the closed shop with the closed union represents the highest degree of control organized labor has been able to attain. Its enemies call it monopoly control.

Grounds of justification of the closed shop policy. Labor contends that the closed shop is essential to make collective bargaining really effective. Without the solidarity of labor that the closed shop represents, collective bargaining is lamed, if not paralyzed, in procuring fair wages, in maintaining the American standard of living, in regulating hours, and in promoting security of the job. If the employer is free to hire and to keep on the pay-roll non-union men, at wages lower than the standard union scale, the strength of the union will soon be sapped and the shop be de-unionized. Organized labor feels that in self-protection the union must control the working personnel of any given plant. The closed shop is the only effective means of doing that.

Another ground on which labor justifies the closed shop is that of benefits received. It is argued that wage advances, shorter hours, and better working conditions are all primarily due to union effort.

These benefits, however, have not been obtained without cost to the unions. They who share the benefits should also share the costs. The non-union laborer, who enjoys the fruits of union efforts and who none the less refuses to join the union, is looked upon as a "slacker" by the unionist. Sometimes, indeed, he is treated as a traitor to the cause of labor.

Still another ground on which labor defends the closed shop is its alleged advantage to the employer, who is furnished with a more homogeneous and efficient supply of labor. No shop, it is pointed out, can hope to operate very efficiently by employing both union and non-union men. The two represent distinctly opposite points of view in the matter of the relations between management and labor, and consequently the development of any real *esprit de corps* is impossible. The employers who insist that they will have harmony by employing only non-union men are virtually denying labor the right to organize. The unions, on the other hand, purport to promote harmony and efficiency by requiring all workers to hold union membership.

Objections to the closed shop policy. While most employers concede the right of labor to organize and to bargain collectively, there is no such general assent to the principle of the closed shop. One of the most emphatic objections of employers to the closed shop is that it means meddlesome interference by outside labor leaders with the relations between employer and employee in a given establishment. This objection was clearly voiced by the employers represented on President Wilson's First Industrial Conference of 1919 in the following statement: "No employer should be required to deal with men or groups of men who are not his employees or chosen by and from among them. Under the organization of the 'open shop' there is not the same opportunity for outside interference on the part of other interests to prevent close and harmonious relations between employer and employee. Their efforts to continue or secure such harmonious relationship are not complicated to the same extent by intervention of an outside interest which may have aspirations and plans of its own to promote, which are not necessarily consistent with good relations in the shop." It is this opposition to outside interference that has prompted some employ-

ers, such as the Pennsylvania Railroad, to favor company unions, that is, unions composed strictly of their own employees.

A second objection urged by the employer against the closed shop is that it is un-American, because it denies men who are able and willing to work the opportunity to do so, except upon the condition of union membership. It restrains the employer from hiring such willing workers. It is a denial of that equality of opportunity which has always been one of the most cherished of American ideals. It substitutes monopoly for freedom. Employers opposed to the closed shop cleverly speak about the "American Plan" (for "American" is a word to conjure with), which means an open shop in which it is said union and non-union men may work side by side without discrimination.

A third count against the closed shop brought by the employer is its inefficiency, a point on which he clashes directly with the labor-union champion of the closed shop. It is alleged that the closed shop tends to repress individual initiative; that strikes are more apt to occur in closed shops than in others; and that the closed shop offers the necessary opportunity for output restriction which raises the prices to be paid by the consuming public.

THE POLICY OF RESTRICTING OUTPUT

No practice of organized labor has been more severely criticized than that, sometimes resorted to, of restricting output. Its most scathing critics often overlook the fact that the policy is by no means peculiar to labor. Other producers have been known to curtail production in order to enhance the price of the commodity they offer for sale. Labor leaders are generally loath to admit that output restriction exists and usually are quick to deny it. Sometimes the habit of working slowly has become so firmly fixed that it is accepted as a matter of course and fails to be recognized as output restriction. The practice of restricting output is commonly known as "killing time" or "soldiering on the job". Its forms are many. Examples are furnished by certain union rules which prohibit the employer from using apparatus or machinery that would reduce the time required for a job and so decrease the amount paid for it; by

the rule of a painters' union limiting the size of the brush its members can use; by a bricklayers' regulation limiting the quota of bricks to be laid per day. Union rules often specify minutely just what each member may do, with the result that a relatively simple job, which could be handled by a single skilled mechanic and his assistant, requires the coöperation of several skilled workmen together with unskilled helpers.

Labor's justification of output restriction. Whenever labor has deliberately resorted to output restriction, the policy has been defended on one of two grounds: the necessity of making the job last in order to prevent unemployment, or the need of protecting the health of the worker. The first is commonly known as the "lump-of-work" argument. Those who advance it contend that in any given industry, through the period of a year, there is only a relatively fixed amount of work to be done. The more one can restrict the daily output of work, the more days of work there will be. When looked at from the point of view of the individual workingman, the practice is by no means as short-sighted and stupid as it is often represented to be. From the social point of view the practice is indefensible, because it means higher costs to society. From the long-time point of view it is fallacious, because such higher costs are bound to decrease the demand, which means less work and perhaps unemployment for the worker. But the individual workingman, in an economic world in which men are expected to look out for themselves, is not apt to think first of either the social or long-run consequences of his practice. What he sees is that by "nursing" a given job along he may realize a larger or steadier income for himself before any social consequences in the long run can appear. The policy is both selfish and short-sighted, but unfortunately it is not always stupid.

The only strong and socially valid argument that labor can offer in defense of the policy of restricting output pertains to the necessity of protecting the health of the worker. Employers have frequently, particularly in industries in which wages are reckoned as so much per piece rather than per hour, introduced pacemakers to speed up production. Sometimes workers themselves, eager "to make more money", have been excessively stimulated under such a piecework

system and have produced results far beyond those attained by the average worker. The employer has then used, or been tempted to use, this demonstration of the possibility of larger output as an excuse for decreasing the piece rate of wages. The result has been that labor received the same or lower daily wages for more daily work. The pace set, labor contends, is often a killing pace, and it is better to "kill time" than to "kill the worker". If work is speeded up beyond a certain point, it will lower the efficiency of the worker in the long run. Greater output today is purchased at the cost of smaller output tomorrow. When the purpose of organized labor in restricting output is to safeguard the health of the worker, so as to make him a more efficient producer and a more useful member of society, the policy is socially desirable.

POLICY OF REGULATING HOURS

The regulation of hours of work became necessary with the development of modern industrialism. It has always been one of the chief objectives of organized labor. So urgent has been the need for such regulation that it has had to be met not only by private action but also by legislation. Modern machine industry, and all that it implies, has subjected human beings to new elements of strain which have greatly intensified fatigue. It is often said that not work, but worry, kills. Worry certainly kills, but so does overwork. Overwork involves an outlay of energy that is not adequately restored. The resulting fatigue is due to the over-consumption of energy-yielding tissues and to the accumulation of poisons in the system. An overtired person is both run-down and poisoned. Ordinarily the poisons created by work are eliminated from the body during rest, or are neutralized. If proper periods of rest follow periods of activity, the human organism gets a chance to recuperate, and an amount of bodily vigor results that is equal to or greater than that which the person possessed prior to the exertion. But when improper allowance is made for such periods of rest, the poisons of fatigue accumulate and tissues that should be restored are not given the necessary chance. The policy of regulating hours has in considerable part been based upon the necessity of protecting the health and efficiency of the

worker. But it has also been motivated by recognition of the fact that man is something more than a mere working machine; that he needs some leisure to develop and to enjoy life in its non-acquisitive aspects. And furthermore, particularly in recurring periods of depression and unemployment, the restriction of daily and weekly hours of work has been urged as a means of making the available work last as long as possible, and of distributing it among those regularly employed so as to provide jobs for the largest number of persons.

The benefits of a shorter working day. The only effective antidote to the direct and indirect consequences of fatigue is the shorter work day. Physically, this is of benefit because it gives the human organism a chance to recuperate, to eliminate the toxins of fatigue and to build up depleted tissues. Morally, the shorter working day is of value, because the greater leisure which it provides makes for better health, greater self-respect, and higher immunity to temptation. Socially, it is of benefit because it enables men and women to live, as well as to work for a living. Excessively long hours of work preclude any real family life or participation in community affairs. They mortgage so large a part of the time and energy of people for working together that not enough of a margin remains for really living together. Reasonable hours on steady jobs almost invariably lead to higher standards of living, adding to the happiness of the present generation and ensuring a more auspicious start for the next. In a democracy, moreover, leisure time is absolutely essential for the development of intelligent citizens. As the writers of the brief in the case of *Bunting v. The State of Oregon* say:

If a democracy is to flourish, the education of the citizen must not end at the fourteenth birthday, when wage-earning ordinarily begins. It must be a continuous process, to enable men to understand great issues as they arise, to discuss them and reach decisions upon them.

In the interest of the state, therefore, industrial labor must be limited: first, so that leisure may be provided outside of working hours; second, so that the worker shall not be too much exhausted to make use of his leisure.²

The economic possibility of a shorter working day. But the important question remains: Is it possible to decrease the hours of

² Felix Frankfurter and Josephine Goldmark, *The Case for the Shorter Work Day* (1915), II, 532.

work without reducing output and lowering wages? To answer this question intelligently, it is necessary first of all to draw a sharp line of distinction between industries in which alertness and skill of the worker are a prime requisite and those in which the pace is set by the machine.

Throughout the history of the movement for the shorter work day, the favorite argument of those opposed to it has been that it would mean reduced output, higher prices, and lower wages. For the most part, however, these gloomy prophecies have not been justified. The most noteworthy report on this whole subject is that of the British Health of Munition Workers' Committee, appointed in 1915 "to consider and advise on questions of industrial fatigue, hours of labor, and other matters affecting the personal health and physical efficiency of workers in munition factories and workshops". During the early part of the war period the previous peace-time restrictions on hours of employment were not observed. So urgent was the need for munitions and other war supplies that it seemed necessary to discard them. Daily hours of work were long, and Sunday and night labor became common. The report states: "The employment of men for 70 to 90 hours a week was common, for over 90 hours was not infrequent, and there were even cases of hours in excess of 100."³ The evidence gathered by the committee showed among other things that such long hours "imposed too severe a strain on the workers"; that "the extra hours produced proportionally little or no additional output"; that the quality of the output might be "adversely affected during the whole period of work, and not only during the hours of overtime"; and that a large part of the longer hours was lost again by broken time due to exhaustion and sickness.⁴ The conclusion of the committee was that for the industries investigated "a reduction in the weekly hours of actual work, varying from 7 to 20 hours per week, in no case resulted in more than an insignificant diminution of total output, while on the average it produced a substantial increase".⁵

³ *Industrial Health and Efficiency*, Report of the British Health of Munition Workers' Committee (U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 249, published 1919), p. 66.

⁴ *Ibid.*, p. 66.

⁵ *Ibid.*, p. 79.

The effect of any material shortening of hours may be very different in industries in which the pace is set by the machine rather than by the workman. Where the machine is the dominant factor, and runs almost automatically, a decrease in hours means a decrease in output unless offset by other conditions.

It is impossible to reach any definite conclusion as to what constitutes the *optimum* working day. Men who think of work as an end rather than a means will insist upon work during just as many of the twenty-four hours as the human organism will stand. Those who think of work as a means to an end will reduce hours just as much as they possibly can. There is no single schedule of hours equally well adapted to all industries. Many factors must be taken into consideration. To quote the above mentioned report once more, these factors include

(1) The strain involved in the work, its character (heavy or light, continuous or intermittent), the mental demand which it makes upon the worker, and the length of process.

(2) The extent to which the pace of the work is governed by the machine.

(3) The factory environment—temperature, ventilation, etc.

(4) The individual physical capacity of the workers, and their age, sex, and experience.

(5) The organization of the factory (including welfare supervision).

(6) The sufficiency and suitability of the workers' food, canteen accommodation, etc.

(7) The arrangements of the hours of work (spells, breaks, and pauses).

(8) Conditions outside the factory—e. g., housing and transit.⁶

Increased efficiency resulting in larger output is what has made possible the shortening of the working day without decreasing wages. Indeed, in the long run increased efficiency has usually made even higher weekly wages possible, thus lending support to the slogan of the Eight Hour League:

Whether you work by the piece or the day,
Decreasing the hours increases the pay.

In the United States the demand for a shorter working day has largely found expression in the "eight-hour movement", which aimed to procure a working day actually limited to eight hours. For

⁶ *Industrial Health and Efficiency*, p. 82.

a comparatively small number of workers a seven-hour day has been established. It is interesting to note that Lord Leverhulme, the British soap manufacturer, seriously proposed a six-hour day on the theory that two shifts of workers each working six hours could by avoiding fatigue increase their efficiency at least one third and thus accomplish as much in six hours as they formerly did in eight. For over forty years the eight-hour day has been one of the principal objectives of the American Federation of Labor. What progress has been made has been very largely restricted to organized labor. Prior to the World War relatively few American workers, outside the building trades, had won the eight-hour day. Since that time, however, rapid progress has been made, though some of the ground gained was lost again during the business depression beginning in 1920. The following statistics for manufacturing industries in the United States show that of the average number of workers employed in 1923, 46.1 per cent were working forty-eight hours or less per week, compared with 48.7 per cent in 1919 and 11.8 per cent in 1914.

WEEKLY HOURS OF LABOR IN MANUFACTURING IN THE UNITED STATES

<i>Prevailing Hours of Labor per Week</i> ⁷	<i>Average Number of Workers</i>			<i>Per Cent Distribution</i>		
	1923	1919	1914	1923	1919 ⁷	1914 ⁷
Total	8,778,156	9,041,311	7,023,685	100	100	100
44 and under	865,687	1,107,991	831,723	9.9	12.3	11.8
Between 44 & 48	395,691	345,897		4.5	3.8	
48	2,780,803	2,948,393		31.7	32.6	
Between 48 & 54	1,925,029	1,490,150	944,685	21.9	16.5	13.5
54	768,524	811,302	1,812,560	8.8	9.0	25.8
Between 54 & 60	1,231,521	1,245,916	1,541,798	14.0	13.8	22.0
60	642,837	816,003	1,485,324	7.3	9.0	21.1
Over 60	168,064	275,659	407,595	1.9	3.0	5.8

⁷ Data for establishments having products under \$5,000 in value included for 1919 and 1914, but not for 1923. Table from U.S. Department of Commerce, *Biennial Census of Manufactures* (1923), p. 1150.

The prolonged and widespread unemployment that characterized the depression beginning in 1929 prompted organized labor to urge employers to "shorten hours and put more persons on pay rolls". As long as industry found it difficult to produce enough to meet the demands of the world for its products, the emphasis of labor-unions in their policy of controlling hours was upon the physical conservation of the worker and the psychological necessity of providing some leisure for him to enjoy life. But when technological progress enormously increased the productivity of some industries, so that the markets found it difficult to absorb their output, the emphasis shifted to the desirability of protecting the job of the worker. To meet such new conditions the American Federation of Labor consistently urged the adoption of the shorter working day as the most constructive step that could be taken to guard against the calamity of total unemployment for millions of wage-earners. Not only the five-day week but also the six-hour day were urged as emergency measures during the depression of the early thirties. But for normal times as well, the five-day week with six to eight hours per day is urged as a means of providing the most steady employment. A survey of 102 industries in the United States made by the Bureau of Labor Statistics revealed that in 1932, out of 44,025 establishments investigated, 2,337 were operating on a permanent five-day week basis, and that 324,836 workers out of a total of 3,848,349 were employed under the five-day week plan.⁸

The passage of the National Industrial Recovery Act and the need of providing some employment for the largest number of persons greatly accentuated the movement toward the shorter working day. The industrial codes adopted under the act contained provisions for maximum hours of work and minimum rates of pay. Working weeks of thirty-five to forty hours became common for those employed in industries operating under the codes.

POLICY OF CONTROLLING THE INTRODUCTION OF MACHINERY

In the early days of the industrial era, long before the existence of labor-unions, when a factory owner tried to install labor-saving

⁸ *Monthly Labor Review*, XXXV (1932), 999-1002.

machinery, he was usually met by the bitter and sometimes violent opposition of the workers affected by the change. As long as the workers were unorganized, such opposition proved sporadic and sooner or later spent itself. When unions arose, however, and adopted a policy of opposition to the introduction of machinery, the hostility proved more formidable. Some unions at first refused to allow their members to operate the machines.

"Short-time" versus "long-time" effects of the introduction of machinery. What the workers saw in the new machine was a competitor for their jobs; a rival, indeed, that might make obsolete all the skill that they had acquired through years of expert craftsmanship. Skill, that had often been jealously guarded as a trade secret, was now embodied in a mysterious device of iron and steel. And an unskilled worker could be taught in a relatively short time how to operate the machine. Little wonder was it that workers who saw themselves displaced, and their very livelihood imperiled, should bitterly oppose the introduction of such new methods.

It was of little use, moreover, to show that the introduction of labor-saving machinery was of benefit to society in the long run; that it greatly increased productivity and lowered cost to the consumer, thereby eventually increasing demand and creating more jobs than it had previously destroyed. The laborer was more directly concerned with income from his job here and now than with what was for the good of society in the long run. He not incorrectly argued that for him as an individual there might be no "long run".

Gradually the attitude of labor toward the use of machinery has changed. It proved futile to oppose the introduction of labor-saving and cost-cheapening devices. To have done so successfully would have meant to block economic progress. Desperate as the situation of the workers thrown out of employment often was, it is true that with lower production costs the demand has ultimately increased so much that more opportunities for employment existed after than before the introduction of the new inventions. Henry Ford states this proposition very effectively in the following words:

For when were men ever really put out of work by the bettering of industrial processes? The stage-coach drivers lost their jobs with the coming of the railways. Should we have prohibited the railways and kept the stage-

coach drivers? Were there more men working with the stage-coaches than are working on the railways? Should we have prevented the taxicab because its coming took the bread out of the mouths of the horse-cab drivers? How does the number of taxicabs compare with the number of horse-cabs when the latter were in their prime? The coming of shoe machinery closed most of the shops of those who made shoes by hand. When shoes were made by hand, only the very well-to-do could own more than a single pair of shoes, and most working people went barefooted in summer. Now, hardly anyone has only one pair of shoes, and shoemaking is a great industry. No, every time you can so arrange that one man will do the work of two, you so add to the wealth of the country that there will be a new and better job for the man who is displaced. If whole industries changed overnight then disposing of the surplus men would be a problem, but these changes do not occur as rapidly as that. They come gradually. In our own experience a new place always opens for a man as soon as better processes have taken his old job. And what happens in my shops happens everywhere in industry. There are many times more men to-day employed in the steel industries than there were in the days when every operation was by hand. It has to be so. It always is so, and always will be so. And if any man cannot see it, it is because he will not look beyond his own nose.⁹

The process of readjustment following the introduction of new labor-saving machinery was often painful for skilled workers. The net gain to society, however, is very great. Unions have come to recognize this fact and today are doing what they can to prevent the cost of necessary social progress from crushing individual workers who must make way for new methods. They no longer oppose the introduction of machines but seek to control their use. By insisting that only union members shall operate the machines, by trying to help displaced workers find other jobs, and by demanding that the scale of wages for machine work shall be as high, if not higher, than that for hand work, organized labor has tried to protect itself in the period of readjustment to new industrial methods.

To the labor unionist the policies just considered—the right to bargain collectively, the recognition of the principle of the closed shop, output restriction when necessary to protect either worker or job, the regulation of hours, and control over the introduction of machinery when it threatens to displace workers—are necessary and desirable if labor is to carry on the economic struggle with management on anything like equal terms and is to win for itself the right to live as well as to work.

⁹ Henry Ford, in collaboration with Samuel Crowther, *My Life and Work* (New York: Doubleday, Page and Company, 1922), pp. 153–154.

CHAPTER IX

INDUSTRIAL CONFLICT

Modern industry is witnessing incessant conflict between the managers of organized capital and the leaders of organized labor. It is not surprising that capitalistic combinations, which are motivated by the desire for profits, should often clash with labor organizations, which are actuated by the desire to raise wages and to advance other interests of the workingman. We have not yet succeeded in creating so perfect an industrial order that the pursuit of maximum profits is entirely consistent with the payment of high wages, the establishment of short hours, and the provision of abundant leisure for the men who work. There assuredly is economy in paying high wages. Mass production itself is economically profitable only when sustained by the buying power of the masses. There must be leisure in which to enjoy the things that are bought, or else only the more necessitous goods will be bought in quantity. But in spite of these admitted facts, the industrial millennium is not yet here. On the contrary, there is continual strife in industry, which often assumes formidable proportions when labor is thoroughly organized and the employer is securely entrenched.

SOURCES OF INDUSTRIAL CONFLICT

Dissatisfaction with the job. While there are many causes of this group conflict in industry, three sources of dissension in particular arrest attention. In the first place, there is much dissatisfaction with the job itself. What is the matter with the job? The modern industrialized job is apt to be *monotonous, impersonal, and insecure*. Its *monotony* is largely attributable to the machine process, which has created jobs involving the endless repetition of simple, unvarying motions. Here is a girl tending a machine that cuts the tops of tin cans. What is she doing? She operates a foot lever 20,000

to 30,000 times a day. Yonder is a workman engaged in a shoe factory. What is his job? The making of a pair of shoes? Hardly! He is spending his day in working on one one-hundredth part of a finished shoe. The factory worker's job has lost the individuality that the master workman's job once possessed. The job has become standardized. The laborer is no longer a master craftsman; typically he is a cog in a great industrial machine. While the modern industrial job is more productive than was the job of the medieval handicraftsman, it is usually more productive of wealth than it is of joy in work. Spontaneous interest in work is largely gone.

The industrial job is not only monotonous, it is also *impersonal*. The personal contacts that at one time existed in industry are today largely gone. There was a time when the laboring man and the employer worked side by side. They lived under the same roof and often ate at the same table. The apprentice, as the laboring man was then called, could look forward to becoming a master workman and the director of the activities of others. Modern capitalism, as represented in the corporation, has changed all this. For the personal bond in industry there has been substituted the money bond. Relatively few workingmen can today look forward to becoming either managers or the capitalistic employers of others. Employers and laborers live in different worlds of thought and consequently often fail to understand each other.

Worse than either its monotony or impersonal character is the *insecurity* of the modern job. It is estimated that in the United States alone there are normally from 1,000,000 to 2,000,000 persons out of work. In the severe industrial depression following the World War there were 1,500,000 to 2,000,000 unemployed persons in Great Britain; perhaps 4,500,000 unemployed in Europe outside Russia and the Balkan States; and as many as 3,500,000 to 5,000,000 unemployed in the United States. In the present depression, about ten years later, conservative estimates place the number of unemployed in Great Britain at about 2,500,000, in Germany at no less than 4,500,000, in the United States at approximately 15,000,000. It is doubtless no exaggeration to say that in Europe and the United States 20,000,000 persons are at present wholly unemployed, with an additional 60,000,000 persons normally dependent upon them.

This insecurity of the job, shutting off the indispensable income upon which the workingman depends, foment a great deal of industrial unrest.

Dissatisfaction with the rewards of the job. A second source of antagonism between these interdependent groups in industry is found in dissatisfaction with the rewards of the job. Labor feels that wages are inadequate. What labor sees is the accumulation of large fortunes in industry, alongside the payment of wages that require the closest economy to meet the ordinary needs of life and that fall far short for most of the emergencies of life. The existence of striking economic inequalities in the status of interdependent groups aggravates group conflict. Of the alleged causes for strikes, disputes concerning wages have, since the gathering of authentic strike statistics, held the premier position.

While the trend of annual real wages, measured in the commodities and services which money wages will buy, has been upward during the last forty years, the level reached in the United States is not so high as to warrant complacent satisfaction on the part of the richest nation the world has ever known. The real issue in all wage controversies is the adequacy or inadequacy, when judged by prevailing standards, of the total annual earnings of a worker measured by what such earnings will buy. The best available statistics, imperfect as they are, show that in the United States, for the decade 1917-1926, after allowance is made for unemployment, the average annual earnings of the workers in the manufacturing, transportation, and coal-mining industries were \$1,142; of union labor in the building industry, \$1,778; of unskilled labor in manufacturing, transportation, mining, and construction, \$990.¹ If these statistics are startling, it is even more shocking to know that the most recent study of the National Bureau of Economic Research, covering the period 1916-1926, places the average per capita current money income of 99 per cent of all the income recipients in this country at \$1,460, with a maximum of \$1,699 in 1926.² A previous study by the same group, based upon data for earlier years, showed that over

¹ Paul H. Douglas, *Real Wages in the United States, 1890-1926* (Boston: Houghton Mifflin Company, 1930), pp. 468, 472, 477.

² W. I. King, *News Bulletin*, No. 34 (New York: National Bureau of Economic Research, Nov. 8, 1929), pp. 2, 3.

98 per cent of the population of the United States depended upon family incomes smaller than \$5,000 each.³ While statistics of wealth distribution are less reliable than those pertaining to incomes, it is worth while noting that a leading authority estimates that in the United States a decade ago less than 1 per cent of the property owners (the majority of people are propertyless) owned more than 25 per cent of the wealth; 2 per cent owned 40 per cent; slightly more than 5 per cent owned over 50 per cent; and a little more than 20 per cent owned over 75 per cent of the wealth.⁴ It is evident that as long as the income levels at which the masses must live are not higher than they are, and as long as glaring differences in the distribution of wealth and income persist, so long will disputes concerning wages and other forms of income continue.

The payment of inadequate wages, as a source of industrial dissension, is much aggravated by the fact that faithful and efficient service in the ordinary industrial job is devoid of that more subtle human recognition which supplements the financial reward of many workers in the professions. Every person, no matter how lowly his position or menial his task, desires at least a modicum of recognition for what he is and for what he does. So impersonal is the typical industrial job of today, however, that the only recognition most workers ever get comes in the pay envelope. The psychic recognition of discriminating praise or spontaneous appreciation is almost wholly lacking.

Dissatisfaction with the efficiency of labor and management. A third basic cause contributing to conflict in industry is dissatisfaction with the efficiency of both labor and management. The demand of organized labor for an advance in wages, or its resistance to a proposed reduction in wages, is often met by the employer with the statement that the efficiency of labor does not warrant the payment of the higher level of wages. The employer often alleges that labor either deliberately restricts output or fails to exert itself to anything like its real productive capacity. In consequence, he says, the productivity of labor does not sustain the demand for high

³ Maurice Leven, *Income in the Various States* (New York: National Bureau of Economic Research, Inc., 1925), pp. 291-293.

⁴ W. I. King, "Wealth Distribution in the Continental United States at the Close of 1921", *Journal of the American Statistical Association*, XXII (1927), 152.

wages and make possible their payment. Labor is apt to retort by saying that lack of productivity is quite as much attributable to inefficient management as it is to any shortcoming on the part of labor. Whatever the truth in these accusations and counter-accusations may be, it is evident that charges of labor inefficiency and managerial incompetence are a frequent source of friction and open conflict in industry.

LABOR'S MEANS OF WAGING INDUSTRIAL CONFLICT

In seeking to gain its ends in industrial conflict, organized labor makes use of the strike, of picketing, of the boycott, and very occasionally of sabotage.

The strike. The strike has been labor's strongest and most effective weapon. Accordingly, it is not surprising that it is labor's favorite mode of attack. Strikes are intended to inflict sufficient injury upon the employer's business so that he will find it more profitable to accede to the demands of the strikers than to hold out against them. Important strikes today are carefully planned, effectively organized, and usually timed so as to catch the employer at a season when he can least afford to face a shut-down of his plant. A strike is something more than quitting work; more even than the collective quitting of work. A strike is a preconcerted cessation of work on the part of employees for the purpose of enforcing certain demands concerning the terms of their continued employment. The strikers have no intention of quitting work permanently. They have every intention of holding on to their jobs while fighting to obtain more favorable terms under which work shall be resumed. The strikers may be on the defensive, struggling to maintain the status quo of wages, hours, or conditions of work; or they may be on the offensive, fighting to win some betterment in their economic condition.

Strikes may be classified as *direct*, *sympathetic*, and *general*. The simplest form of strike is the direct strike. A strike may be said to be direct when the strikers have a grievance of their own against their employers. Such a strike may be local or widespread. If a local union, like a painters' union, or a national union, like the Brotherhood of Locomotive Engineers, carries on a strike against its em-

ployers for the removal of certain grievances or the granting of certain conditions concerning continued employment, the strike is direct.

Sympathetic strikes are more indirect. If workers with no direct grievance against their own employers nevertheless go on a strike in order to support the strike of some allied union, the former may properly be described as a sympathetic strike. Sympathetic strikes have been common in, and perhaps even characteristic of, the building trades. If the plumbers of a given city, for example, are striking for an increase in wages, and the steam-fitters, sheet-metal workers, and other building trade craftsmen with no grievance of their own join the strike in order to help the plumbers, the strike of the plumbers is direct, but the strike of the rest is sympathetic.

Even more sweeping than the sympathetic strike is the general strike. The concept of the general strike is rather indefinite, but in its very vagueness lies some of its appeal to labor. It has sometimes been used to mean the cessation of work in all industries everywhere. As such it represents the ideal of movements like Syndicalism and the Industrial Workers of the World. It is an elusive ideal, doubtless incapable of realization, but none the less earnestly proclaimed on that account. If a simultaneous general strike in all industries seems a bit visionary, the advocates of this form of industrial conflict contend that a general strike in certain strategic industries, like transportation and mining, would accomplish the purpose almost as effectively. Again, the term "general strike" is used less ambitiously to designate cessation of work in a given geographic area. The area may be national, and only strategic industries of the nation be affected. In this sense the great British strike of 1926, which involved the miners and transport workers, was a general strike. On the other hand, the area may be restricted to a local community. The strikes in Seattle and Winnipeg, both of which occurred in 1919, and the San Francisco strike of 1934 were sufficiently widespread to warrant being called general strikes. The obvious purpose of a general strike is to throttle the economic life of the community so effectively as to compel speedy recognition of the demands of the strikers.

The object of a strike may be to retain some gains previously

made or to win some new advantage for labor. In general, this is the distinction between a defensive and an offensive strike. In analyzing the causes of strikes, it should be noted that the avowed objects of strikes are not always the real causes. The objects alleged are formulated so as to win the support of public opinion; the real causes may or may not be the same. Fairly trustworthy strike statistics for the United States are not available for the period prior to 1881. Examination of the data available beginning with 1881 shows that the leading issues at stake in strikes pertain to wages, union recognition, and hours of work; during the latter half of this fifty-year period their importance is in the order named.

The conduct of strikes does not necessarily mean the use of violence to gain the desired ends. Strikes can be orderly and peaceful, a form of passive resistance to the employer's policies. But strikes are ordinarily waged in a highly charged atmosphere. Emotions are apt to run high. The demands of the workers have been denied, and the market outlets of the employer have been blocked. Under such conditions it is not surprising that men whose wishes and plans have been thwarted should sometimes revert to primal instincts. The strike gets "out of hand". Men become irrespressible. Idle men congregating in large numbers are highly susceptible to suggestion. Personal encounters and attacks upon the property of the employer are easily incited. The violence of strikes can be readily explained, even if not defended, by the psychology of the total strike situation. The chief cause exciting violence in strikes, however, is the presence of strike-breakers. The striking workingman regards the strike-breaker, whom he contemptuously calls a "scab", as a traitor to the cause of organized labor and as a dangerous menace to the workingman's ability to recover his job when the strike is settled. The employer, on the other hand, sees in the strike-breaker at least a temporary ally in the attempt to win the struggle with his striking employees. It is over the attempt of strike-breakers to take the jobs of the strikers that physical clashes almost invariably develop. Violence is sometimes deliberately aggravated by the importation of trouble-makers for the purpose of discrediting the strike in the eyes of the public. Which side to a strike controversy is the more responsible for violence it is often impossible to say. The use of violence, however, is almost

sure to antagonize the public and to invite the intervention of the courts.

Whether or not a strike is effective depends upon the ability of the strikers to injure the employer's business. The real battle-ground of strikes is the market-place. If the strikers can interfere with the employer's marketing of his product, perhaps rendering it impossible for him to make deliveries as agreed upon and forcing him to lose future contracts to his competitors, they are in a highly strategic position to compel him to yield to their demands. Besides, idle plants yield no return on the investment and frequently "eat up" new capital to meet the carrying charges. This is a form of pressure to which the employer is very susceptible. The effectiveness of strikes very largely depends upon their timeliness. The most opportune time for a strike is when business is good and the employer is straining his resources to meet the demands of the market. Somewhat less timely, but still opportune, is the period of recovery from a business depression. Strikes are symptomatic of periods of health or convalescence of business. It is futile to strike when business is poor, or going from bad to worse, because at such times the employer has little to lose by the enforced shut-down of his plants. Indeed a strike at such a time might be very welcome to him, for it would absolve him from the unpleasant task of "laying off" some of his men.

Picketing. The efficacy of a strike very largely depends upon the inability of the employer to get equally competent men to take the place of the strikers. If he could, the injury to his business might be very temporary. To prevent him from doing so, organized labor in conducting a successful strike must picket the plants of the employer. Picketing is an attempt on the part of the strikers to protect their jobs. Pickets, as the representatives of the strikers are called, station themselves at the workers' entrance to the plants involved in the strike. They seek to persuade any regular employees who have remained at work to join the strikers and at the same time to dissuade any new employees from taking the jobs of the strikers. If picketing involved nothing more than friendly discussion and peaceful persuasion, there could be no serious objection to it as a mode of industrial conflict. But in practice picketing is not usually restricted to friendly discussion. Persistent picketing, with repeated futile at-

tempts at persuasion, is apt to assume an intimidating tone and to become coercive in character. The job of the strikers is at stake; while they are fighting to improve it, they naturally want at all costs to retain it. If the job can be protected by peaceful persuasion, labor will try peaceful persuasion; but if coercion is necessary to prevent the influx of new men, labor will not shrink from this. The strikers doing picket duty usually do not have to resort to actual physical violence, though this is frequent enough. If they gather in impressive numbers, the men seeking to work in the picketed plant are apt to be intimidated by this show of strength. It is not the use of physical violence so much as it is the fear of such violence that intimidates the competitors for the jobs of the strikers.

The boycott. The strike and picketing are intended to bring the productive activities of the business concerned to a standstill by withdrawing the labor force. The boycott seeks to make it unprofitable for a business to go on producing goods by closing as much as possible the market for these goods. Strikes interfere with the making of goods; boycotts, with the marketing of goods. In general the boycott, as a form of industrial conflict, means the collective refusal of a group of workmen and those whom by persuasion or coercion they can prevail upon to join them, directly or indirectly, to patronize an employer against whom they have a grievance. The grievance usually arises out of an employer's refusal to accede to some demand of labor, and the boycott is intended either to force him to yield or to punish him for his failure to do so. The present name of this practice goes back only to 1880. An English landlord, Lord Erne, was having some difficulty with his tenants. He sent an agent, Captain Boycott, into Connemara, Ireland, the region of disaffection, to take charge of the situation. The tenants opposed him so bitterly that before long Captain Boycott and his family found themselves completely isolated from intercourse with the people of the community. To this non-intercourse practice originally resulting in the ostracism merely of a representative of the English landlord class, the name "boycott" was given, and it has persisted ever since to describe a well-known mode of group conflict.

Boycotting has developed a variety of forms which have grown out of the number of parties involved and the presence or absence of

the element of coercion. Since almost every effective boycott today involves third parties, rather than merely the boycotted employer and the boycotting employees, a classification based upon the number of parties concerned is gratuitous. A more significant classification rests upon the persuasion or coercion used in the boycott. If the labor group conducting the boycott merely refrains from dealing with the boycotted employer and also uses only peaceful means of persuasion to induce prospective customers to refrain from dealing with him, the boycott may be said to be a primary boycott. But if the labor group conducting the boycott brings coercive pressure to bear upon such prospective customers, threatening them with damage to themselves, in order to compel them to withhold their patronage from the boycotted employer, the boycott may be classified as a secondary boycott.⁵ In the nature of things, virtually every important boycott must involve third parties, and almost always the effective coöperation of third parties is only secured through some degree of coercive pressure open or secret. Organized labor, therefore, is primarily interested in the possible use of the secondary boycott.

The effective use of the boycott in industrial conflict turns on a number of conditions. Labor must be strongly organized; without large and cohesive numbers the boycott will not make much of an impression, for the loss of patronage will be negligible. Strength of organization is essential in order to secure the necessary wide publicity. If news of the boycott cannot be spread by word of mouth, letters, circulars, and other means, the chances of success are not very great. Much depends upon the character of the market for the boycotted good. If the boycotted good is a commodity of wide and constant use, easily distinguishable from competing substitutes, a boycott can be very effective provided the boycotting organization can through the necessary publicity secure the coöperation of potential buyers. But strength of the boycotting organization, extent of publicity, and character of the market for the boycotted commodity are of no avail unless together they succeed in bringing sufficient influence, persuasive or coercive, to bear upon prospective buyers to

⁵ This is the distinction drawn by the United States Supreme Court in the case of *Duplex Printing Press Company v. Deering*, 254 U.S. 443 (1921).

cause them to withhold their patronage. Organized labor has increasingly been obliged to resort to coercion to make boycotts really effective.

Sabotage. A very different sort of industrial fighting technique from that of strikes, picketing, and boycotts is presented by sabotage. Strikes and picketing aim to effect cessation of production; boycotts strive to remove the market for goods; sabotage seeks to interfere with production to such an extent as to make it unprofitable. Sabotage is a form of output restriction designed to secure concessions from the employer to the demands of the workers. The term is less frequently used today, however, to refer to the slowing-up of the worker than it is to describe actual interference with the physical machinery of production. Speaking of the means of carrying on clandestine sabotage, Spargo says: "A little dust in the bearings, especially emery dust, would do much. Soap in boilers would retard the development of steam. Judiciously planned 'accidents' might easily create confusion for which no one could be blamed. A few 'mistakes' in handling cargoes might easily cost the employers far more than a small increase of wages would."⁶ The intention in such practice is plain: to cause sufficient loss through the slowing-up of physical production as to make it more profitable for the employer to accede to the demands of his employees than not to do so. It has been suggested that the term "sabotage" is derived from the French expression *travailler à coups de sabots*, which means "to work as one wearing wooden shoes" i. e., to work slowly and inefficiently.

Sabotage is the most insidious form of industrial conflict. It is stealthy in its approach and certain in its aim. It strikes terror to the heart of the employer, for it is bound to inflict loss upon him. It lends itself to the use of a resentful individual or to the members of a union operating collectively. When once it breaks out in a plant it keeps the employer in a constant state of nervous apprehension as to what loss he will suffer next. It reveals a spirit of desperate determination on the part of his men. Sabotage is to industrial conflict what poison gas is to warfare.

⁶ From *Syndicalism, Industrial Unionism and Socialism* by John Spargo. Copyright 1913. Published by The Viking Press, Inc., New York.

The chief factor limiting the use of sabotage is the intense resentment it arouses among employers. It creates suspicions as to the perpetrators, which sometimes are directed against innocent persons. If responsibility for sabotage which results in property damage can be fixed, the courts will allow damages. But arrest and conviction are almost impossible in the type of industrial conflict that sabotage represents. If the employer cannot eliminate it and will not accede to its implied suggestions, his only alternative is to shut down his plant and lock out his men.

EMPLOYERS' MEANS OF WAGING INDUSTRIAL CONFLICT

For each of labor's distinctive modes of attack in industrial conflict, employers have developed comparable methods of fighting. While labor most frequently takes the initiative, since the unions are constantly struggling for an improvement in the economic status of the worker, the employer not infrequently forces the issue and fighting himself. The strike finds its counterpart in the lockout. The employer meets picketing by an attempt at strike-breaking through the hiring of new men, whom organized labor has branded as traitors and "scabs". The black-list is the employer's reply to the laborer's boycott; it is the employer's boycott of labor's services.

The lockout. A lockout occurs when an employer, in a controversy with his employees, shuts down his plant and closes the doors against them. By so doing he hopes to compel them to accept his terms. The external pictures presented by strikes and lockouts are very similar: idle plants and idle men. The chief difference lies in the initiation of the action resulting in cessation of work. Strikes represent labor's initiative; lockouts, the initiative of the employer. Lockouts are sometimes declared on the principle of military strategy that the best defensive is often a vigorous offensive. When a strike is impending, the employer may regard it as good strategy to take the initiative and lock out his employees. Such strategy sometimes serves to becloud the issue at controversy as it appears to the public. What threatened to become a strike over wages, for instance, may be made to appear a lockout over union recognition and the maintenance of the open shop. The economic results of strikes and lock-

outs are the same: loss of wages, loss of profits, and inconvenience or even hardship to the public. If the employer happens to be facing a business depression, neither a strike nor a lockout may be wholly unwelcome. Since the controversies leading to both strikes and lockouts are much more apt to arise during periods when the prospects for profits are good, the employer's financial interests will restrain him from resorting to the lockout except in the face of a grave emergency.

Strike-breaking by non-union labor. Strikers seek to protect their jobs by the establishment of picket lines. Employers try to protect their business by hiring non-union workers to take the place of the strikers. Pickets and strike-breakers represent two antagonistic forces moving in opposite directions, with clashes between them almost inevitable. The striker justifies his own course of action by the thought that he is fighting for a warranted improvement in his own lot and that of his fellow workingmen. The strike-breaker defends himself—though more frequently the employer does it for him—by asserting his sacred right to work. If the strikers wish to quit their jobs, that is their right and privilege; in this country no one can be compelled to work against his will, for that is involuntary servitude. But why should not the man who is jobless and anxious to work, or the man who is eager to step from a poorer job to a better one, be permitted to take the jobs of the strikers? If one group of men has the right to quit work, can we fairly deny to another group of men the right to begin work? The employer who is determined to defeat a strike is apt to be very much more concerned with the right to work of the strike-breakers than he is with the human rights of the strikers as to fair wages, reasonable hours, and decent conditions of work.

While employers have won many strikes through the employment of non-union labor, it is a form of industrial strategy beset with many dangers. The advent of strike-breakers is the almost invariable signal for physical encounters, and often the occasion for much property damage. The importation of "professional" strike-breakers—"strong-arm" men and detectives, for example—merely adds fuel to the rising flames of hatred and violence. If the employer wins the strike through such methods he is confronted with the necessity of

developing a labor force at least equal in efficiency to the men he has lost. If he loses and the strikers return to their posts, they may harbor a feeling of resentment toward the employer that will lead to new difficulties in the future.

The black-list. The black-list is the boycott applied by the employer to the services of labor. A black-list is simply a list of the names of employees, or former employees, whom the employer regards as objectionable. The ground of objection is almost invariably some form of labor-union activity, such as striking or an attempt at the unionization of the plant, which proves offensive to the employer. Workers who are blacklisted will not be employed by any members of the employers' association and may even experience difficulty in finding a job elsewhere. The clearance card, which purports to convey an honorable dismissal, may carry a secret symbol which labels its holder as an undesirable employee. On account of laws against blacklisting, the employer adopting the practice has had to disguise his technique, but in these days of easy communication this is readily accomplished.

The injunction. While there is no reason why organized labor as well as the employer should not occasionally ask for the intercession of the courts in industrial conflict, as a matter of practice injunctions are rarely asked for by labor. The employer, on the other hand, has frequently applied for court injunctions to compel labor to do or not to do a given thing. The most common occasion is the outbreak of violence in industrial disputes. An injunction is an order of a court having equity jurisdiction commanding the enjoined persons to refrain from or to perform certain specified acts, on the ground that obedience to the court order is essential to prevent irreparable injury to the party seeking the injunction. An injury is considered irreparable when the subsequent award of damages cannot adequately compensate for it. Almost all labor injunctions are restraining orders, which require labor to desist from certain specified practices, rather than mandatory orders, which compel labor to perform certain acts. Violation of a court injunction is punishable as contempt of court, and the court may impose a fine or imprisonment upon the persons guilty of it without any trial by jury. In a few State courts, and in all the federal courts, per-

sons charged with contempt of court may now ask for trial by jury if the acts leading to an injunction and subsequent contempt of court are indictable as crimes.

The use of injunctions by the employer to restrain industrial disputes has tended to embitter labor. Labor regards injunctions as part of the employers' strategy to alienate public opinion from the support of labor, since injunctions are apt to convey the impression that those enjoined have transgressed the law. Labor also resents injunctions because frequently they serve to undermine the morale of the fighting union by diverting the energy of its leaders from the conduct of strikes and boycotts to the conduct of court proceedings. Injunctions are properly regarded as emergency measures designed to protect person and property and to prevent irreparable damage. The courts, however, have interpreted the right to do business as a property right and have often sought to protect the employer's right of access to both the commodity and the labor market. In practice, labor contends, the granting of injunctions has been much abused. Sometimes, instead of granting an injunction against specified acts on the part of labor, a "blanket" injunction has been granted, the obvious purpose of which is to hamper labor in the conduct of industrial conflict. Such cases have given rise to a feeling, which has often grown into a deep-rooted conviction, that the courts are biased in favor of the employer, which has weakened the prestige of the courts. "Added to this is the fact", says E. E. Witte, "that with the frequency of their use injunctions have lost their sting. It is not uncommon for labor leaders to boast of the number of injunctions which have been served upon them. Among the members of trade unions the feeling is general that the courts are against them; and they are not particularly surprised or alarmed when an injunction is issued. Even jail sentences for violation of injunctions are regarded not as a disgrace, but as proof of wholehearted devotion to the cause of labor. Similarly, the public has come to look upon injunctions in labor disputes with suspicion."⁷

If an injunction be used to prevent the performance of an act which irreparably violates a property right, whether of the em-

⁷ "Value of Injunctions in Labor Disputes", *Journal of Political Economy*, XXXII (1924), 345.

ployer or of the workingman, its use can be easily justified. But when an injunction is used to prohibit acts which are not usually regarded as unlawful, such as strikes to improve the economic status of the worker, it represents a highly questionable means of industrial conflict. Injudicious use of injunctions breeds contempt for the law. Employers today are inclined to apply for them more sparingly. They have not proved as useful to employers as is commonly supposed; at the same time they have aroused a rankling bitterness among organized workers and vigorous criticism among responsible leaders of the general public.

Yellow-dog contracts. Second only to injunctions in the opprobrium of labor are so-called "yellow-dog contracts", which the employer has sometimes used in the attempt to get the better of labor in possible future industrial conflict. While "yellow-dog" contracts may assume a variety of forms, they are most distinctively contracts in which workingmen pledge themselves as a condition of employment not to join an outside labor organization.⁸ The use of such contracts did not become either important or widespread until after the World War. The decision of the United States Supreme Court in the *Hitchman Coal and Coke Company* case⁹ in 1917 gave impetus to the movement. In this case the court upheld an injunction which had been granted the company restraining the United Mine Workers from seeking to organize its employees, because as a condition of their employment they had agreed not to join a union.

The real threat to labor, however, lies not in the mere legality of "yellow-dog" contracts. All that this means is that the employer has the legal right to sue for breach of contract, if it occurs, which is not a very valuable right, since it is difficult to prove that the breach of contract caused damage and even more difficult to collect anything worth while. The real menace to unionism in "yellow-dog" contracts lies in the restrictions which the Supreme Court decision in the *Hitchman* case imposes upon labor-union organiz-

⁸ The name "yellow-dog contract", suggesting absolute domination by the employer and cringing servility on the part of labor, prejudices liberty-loving individuals against it. The name is enough to condemn the thing itself with many persons.

⁹ *Hitchman Coal and Coke Co. v. Mitchell*, 245 U.S. 229.

ers: the court held that it is illegal for any third party to try to persuade employees working under "yellow-dog" contracts to violate such contracts. When labor organizers have sought to do so, employers have promptly asked for injunctions enjoining their activities. Thus in the eyes of labor "yellow-dog" contracts and injunctions have become an unholy alliance which threatens the growth, if not the very existence, of organized labor.

About a dozen States had by 1933 outlawed "yellow-dog" contracts, and Congress within the limits of its jurisdiction sought to do likewise in the Norris-La Guardia Act approved March 23, 1932. In this law Congress affirmed the freedom of association and action of workers and declared "yellow-dog" contracts contrary to public policy and non-enforceable in any federal court. Section 7a of the National Industrial Recovery Act again outlawed the "yellow-dog" contract for all workers employed under the codes authorized by the Act. The principle is reaffirmed in the Wagner-Connery National Labor Relations Act of 1935.

THE ATTITUDE OF THE PUBLIC TOWARD INDUSTRIAL CONFLICT

The progress and outcome of industrial conflict are no longer a matter of interest solely to the contending parties. There is a "party of the third part" deeply concerned in every major industrial conflict, usually greatly inconvenienced, often sorely punished, and frequently holding the balance of power. It is the consuming public, whom neither side wants openly to antagonize and whose active support both sides earnestly covet. It is doubtful whether any important industrial struggle can be won in the face of the open opposition of the public.

If the underlying reason be sought for the deep concern of the public over industrial conflict, it may readily be found in the economic interdependence of our time. Industrial disturbance in the operation of the railroads, a prolonged strike in the coal-mining industry, or cessation of productive activities in such a basic industry as steel manufacturing is of the utmost concern to the public. Such large-scale struggles are apt to throw the entire productive mechanism out of gear and to affect the lives of millions of people. Conse-

quently, the public is no longer a disinterested spectator content to keep "hands off" and to see the contestants fight it out by themselves. The public looks to the courts for the equitable protection of the interests of all parties, including its own. At the same time, too, the public is much concerned with the development of agencies for the settlement of industrial disputes that have broken out into open conflict, and for the prevention of as many serious industrial struggles as possible.

THE RESTRAINT OF INDUSTRIAL CONFLICT BY THE COURTS

The conduct of industrial conflict, particularly as far as labor is concerned, has been materially affected by decisions of the courts. The rights of workers to strike, to picket the plants of their employers, and to boycott the employers' goods have had a rather uncertain status in the courts of the land. Because the courts have been inclined to recognize the right to do business as a property right, they have sought to protect the employer in his access to materials and men and also in the marketing of his finished products. Strikes, picketing, and boycotts interfere with his right to do business; consequently, the courts have frequently granted him injunctions to protect his property rights.

In carrying on industrial conflict, organized labor has felt the powerful restraining influence of two legal doctrines: the doctrine of conspiracy and the doctrine of restraint of trade. Both developed in the common law; both have been translated into statute law.

Judges, in applying the common-law doctrine of conspiracy to cases involving certain questionable practices of combinations, have commonly defined a conspiracy in substantially the following language: "A conspiracy is a combination of two or more persons, designed by concerted action to accomplish some criminal or unlawful purpose, or to accomplish some purpose not in itself criminal or unlawful, by criminal or unlawful means."¹⁰ Both purpose and means, or either alone, may be used to differentiate a lawful combination from an illegal conspiracy. Under the doctrine of con-

¹⁰ For substantially this definition cf. *Commonwealth v. Hunt*, 4 Metcalf (Mass.) 111 (1842).

spiracy, acts which are perfectly legal when they are the actions of one person may be wholly illegal when performed by several persons acting through preconcerted agreement. A man may quit his job for any or no reason. He may refuse to patronize a dealer with or without cause. But if he enlists the coöperation of others in doing the same thing and organizes a strike or boycott, the legal quality of his acts may be judged very differently. The many are presumed under the law of conspiracy to have a capacity for inflicting injury which the one does not have.

Whether a particular combination is or is not a conspiracy under the common law has often proved a knotty problem to decide. The courts have set up a number of criteria by which to test whether a given combination is a conspiracy. One of these is furnished by the motives of the persons in the combination. If the motive can be shown to be dominantly the motive of self-help, the combination will usually be declared legal. But if it can be shown that the combination has a malicious intent, the chief purpose being to inflict an injury upon someone else, the combination will usually be declared a conspiracy and consequently held to be illegal. In concrete cases, it is obviously often very difficult to determine what the controlling motive really is. Strikes, picketing, and boycotts are motivated both by the desire to help the workingman and by the desire to injure the employer. The latter is usually a form of pressure to achieve the former. Is the intent to injure merely incidental to the motive of self-help? Do workingmen have just cause for combining to interfere with the employer's making and marketing of goods? Are the rights of workingmen to improve their status at least equal to the employer's right to do an uninterrupted business? These are questions for the courts to decide. One jurist will see self-help as dominant and consequently discover only a lawful combination; another will see injury to the employer as the controlling motive and consequently pronounce the combination an illegal conspiracy. A second criterion established by the courts for testing the conspiracy-character of a combination is the presence or absence of illegal means, such as coercion and intimidation. If the court holds that the persons in the combination are guilty of acts of coercion and intimidation against others, the combination is almost sure to be

pronounced an illegal conspiracy. It is apparent that the judicial determination of motive, and of the use of intimidation, offers plenty of latitude for the expression of the particular predilections of the judge.

Not only the doctrine of conspiracy but also the doctrine of restraint of trade has served to hinder organized labor in the conduct of industrial conflict. This doctrine presents, as the criterion of the legality of labor's conduct in such conflict, not the injury done to the employer but the injury inflicted upon the public. In the United States, the restraint-of-trade doctrine, which is of common-law extraction, has been embodied in the Sherman Anti-trust Act of 1890 and in comparable statutes in the several commonwealths. While most of the cases against labor have been decided upon the doctrine of conspiracy, some have been based upon the statute-law doctrine of restraint of trade. The first section of the Sherman Act of 1890, which declares every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several States to be illegal, has been held to apply to labor organizations in the conduct of industrial conflict. The doctrines of conspiracy and of restraint of trade furnish the warp of judicial decisions in cases arising out of violation of property rights in industrial disputes. The trend of court decisions has strongly influenced the technique of the opposing forces in industrial conflict.

Legal restraint of the strike. These abstract doctrines of the law and of the courts have had to be applied to concrete types and cases of industrial controversy. The legal status of strikes has been shrouded in much uncertainty. Since men cannot be compelled to work involuntarily without reducing them to slavery, the courts have frequently held that the strike, if it means only the collective cessation of work, is legal. If the strikers have broken a contract to work, they may be sued for damages for such breach of contract, but any such action does not interfere with their right to strike. The strike, however, always means something more than the collective cessation of work. It is quitting work for a purpose: the purpose of enforcing certain conditions concerning continued employment. The legality of the strike as a weapon in industrial conflict has frequently been challenged by the employer and denied by the

courts. The legal question at issue almost always resolves itself into this: What is the purpose of the strikers? If it can be shown that their purpose is primarily to benefit themselves through achieving some such end as higher wages or shorter hours, the legality of the strike will be upheld. But if, on the contrary, it becomes evident that the intent to injure either the employer or non-union workers is the dominant motive, the strike is almost sure to be held illegal. To be sure, almost every strike injures the business of the employer, but if the injury is merely incidental to the attainment of better working conditions and terms, the courts are apt to overlook it. But strikes to secure the closed shop, or sympathetic strikes, which involve injury to the employer or to third parties, do not easily win judicial sanction. The reason is that the courts regard such strikes as malicious and as unwarranted infringements upon the rights of others.

The conduct of strikes, as well as of some other forms of industrial conflict, is materially affected by the decision of the United States Supreme Court in the case of the *United Mine Workers of America v. Coronado Coal Company*.¹¹ The decision establishes the financial liability of labor-unions, even though they are unincorporated associations, for offenses against the laws of the United States. The case arose out of a struggle for the closed shop. The Coronado Coal Company in 1914 attempted to run a non-union mine in Arkansas not far from the Oklahoma State line, and in the midst of union labor territory. In doing so the company violated a contract with the United Mine Workers, which still had three months to run. The evidence in the case showed that the district officers of the United Mine Workers with headquarters at McAlester, Oklahoma, had planned and directed an armed attack upon the Arkansas mine of the Coronado Coal Company. In the course of this industrial warfare the mine buildings were dynamited and burned and two non-union employees of the Coronado Coal Company were murdered while in the custody of a constable. The company brought suit against the United Mine Workers, as well as the district and local unions concerned, charging the existence of a conspiracy in restraint of interstate commerce and asking for the triple damages

¹¹ 259 U.S. 344 (1922).

provided by the Sherman Act for such offenses. The lower court found for the company and rendered a verdict of \$200,000 against the union, which under the treble-damages section of the Sherman Act, together with expenses of litigation, made the total liability of the miners amount to \$800,000. The union appealed the case to the Supreme Court of the United States. It sought to defend itself in two ways: first, by denying that there was any conspiracy to restrain interstate commerce; and secondly, by saying that even if there was, the union was not liable for any resulting damages, because it was an unincorporated association. The Supreme Court accepted the first line of defense because the evidence did not clearly establish the existence of a conspiracy to restrain interstate commerce. The real significance of the decision, however, lies in the opinion of the court with reference to the second proposed line of defense. The court held that, had the evidence sustained the charge against the union of restraining interstate commerce, the union would have been liable for damages, whether incorporated or not. Under the common law, it is true, voluntary unincorporated associations, like labor-unions, could neither sue nor be sued in the name of the association; legal liability had to be enforced by or against the individual members. The court held that this was impractical and inequitable under existing conditions, and construed the penalty provisions of the Sherman Act broadly enough to apply to labor-unions, whether incorporated or unincorporated. Mr. Chief Justice Taft in rendering the decision of the court said:

It would be unfortunate if an organization with as great power as this international union has in the raising of large funds and in directing the conduct of 400,000 members in carrying on, in a wide territory, industrial controversies and strikes, out of which so much unlawful injury to private rights is possible, could assemble its assets to be used therein free from liability for injuries by torts committed in course of such strikes. To remand persons injured to a suit against each of the 400,000 members to recover damages and to levy on his share of the strike fund would be to leave them remediless.

The decision in no way restricts the *right* of organized labor to strike. What it does say, however, is that a union, simply because it is an unincorporated association, cannot escape financial liability for any damages caused by offenses against the laws. The Supreme

Court laid down a new rule for labor-unions to observe in the future conduct of strikes, with the warning that failure to observe it might lead to an attachment of union funds.

Legal restraint of picketing. Court decisions have also materially modified the scope and conduct of lawful picketing. In general, the courts have held that picketing by peaceful persuasion is legal, but that the use of coercion or violence is illegal. In practice, however, it is often exceedingly difficult to tell just where persuasion leaves off and intimidation begins. Consequently, it is not surprising that, with substantially the same set of picketing facts before them, some judges have seen only violation of the law and others have pronounced the picketing legal. That picketing always amounts to intimidation was the opinion of some judges. Judge McPherson of the federal courts, for example, expressed himself in no uncertain terms when he said: "There is and can be no such thing as peaceful picketing, any more than there can be chaste vulgarity, or peaceful mobbing, or lawful lynching. When men want to converse or persuade, they do not organize a picket line. . . . The argument seems to be that anything short of physical violence is lawful. . . . But the peaceful, law-abiding man can be and is intimidated by gesticulations, by menaces, by being called harsh names, and being followed, or compelled to pass by men, known to be unfriendly. . . . The frail man, or the man who shuns disturbances, or the timid man, must be protected, and the company has the right to employ such."¹² That picketing does not necessarily imply intimidation was the equally positive, if less forcibly expressed, opinion of other courts. While peaceful picketing was more often upheld than denounced by the courts, the concrete question that always arose to perplex the judges was: When is picketing peaceful? In the absence of positive standards to apply, the personal bias of the jurists proved the deciding consideration.

Two decisions of the Supreme Court of the United States in 1921¹³ made the tests somewhat more definite. In the *American Steel Foundries Company* case the Supreme Court apparently de-

¹² *Atchison, Topeka and Santa Fe Railway v. Gee*, 139 Fed. 582 (1905).

¹³ *American Steel Foundries Company v. Tri-City Trades Council*, 257 U.S. 184; *Truax v. Corrigan*, 257 U.S. 312.

clared all mass picketing unlawful, but expressly sanctioned a single picket at each plant entrance. In the case of *Truax v. Corrigan* the Supreme Court held unconstitutional an Arizona statute which sought to legalize mass picketing. While the doctrine of these decisions was not new, it did set a standard for the courts to follow in the future, which both the federal and State courts have very generally done. The net result of these decisions has not been to abolish all picketing but strictly to limit the number of pickets that may be used and to prescribe what they can legally do. Mass picketing, the use of violence by pickets, intimidation, and even long-continued peaceful persuasion by pickets are declared unlawful. But peaceful persuasion by a strictly limited number of pickets, whose conduct is not such as to arouse fear in the workers they seek to persuade, is now usually declared lawful.

Legal restraint of the boycott. Not only the conduct of strikes and picketing, but also the nature and effectiveness of boycotts have been greatly restricted by the courts. Supreme Court decisions have established two principles: first, the legal liability of labor-union members for damages caused by boycotts, which was the outcome of the *Danbury Hatters' case*; ¹⁴ and secondly, the illegality of any boycott involving pressure upon third parties, which was the point in the *Duplex Printing Press Company decision*.¹⁵

The *Danbury Hatters' case* first came before the courts in 1903 and was finally settled by the Supreme Court of the United States in 1915. The case arose out of a boycott conducted by the United Hatters of North America in their struggle for a closed shop. The union, in spite of much opposition, had succeeded in establishing the closed shop in a considerable number of important plants. When the unionists, however, proposed the closed shop plan to the D. E. Loewe Company of Danbury, Connecticut, they encountered some particularly determined opposition. A strike and a boycott followed. The labor unionists ascertained the destination of shipments from the Loewe plant, communicated with fellow-unionists in the places concerned, and through personal solicitation and advertising conducted a vigorous boycott against the firm. The company

¹⁴ *Lawlor v. Loewe*, 235 U.S. 522 (1915).

¹⁵ *Duplex Printing Press Company v. Deering*, 254 U.S. 443 (1921).

claimed that it suffered a direct net loss during the period of the boycott, and attributable to it, amounting to \$88,000. The D. E. Loewe Company in consequence brought suit against the labor unionists as individuals, charging them with conducting a combination in restraint of trade, which is directly prohibited by the Sherman Anti-trust Act. After years of tedious litigation, the United States Supreme Court announced the final decision on January 5, 1915: it held 186 Danbury members of the United Hatters guilty of restraining interstate trade and awarded the Loewe Company \$252,130 in damages, the triple damages provided for in the Sherman Anti-trust Act for violation of this law. The court held that the individual members of the Danbury Hatters' Union could be held liable because so much publicity had been given to the boycott that they could reasonably be presumed to have knowledge of the unlawful acts of their officers and to have given their approval. The homes and bank accounts of the Danbury hatters were attached to satisfy the judgment. The judgment was paid in 1917, largely by voluntary contributions of labor unionists throughout the country, the American Federation of Labor raising \$216,000. Settlement was made for \$234,000 in spite of the fact that the judgment with interest amounted to \$310,000, because in the meantime the D. E. Loewe Company had become bankrupt, and it was thought that the property attached in satisfaction of the judgment was not worth more than \$234,000. The Danbury hatters, most of whom had had no closer connection with the boycott than that implied by membership in the boycotting union, lost their savings accounts, but their homes were restored to them as a result of the financial aid of their sympathizers. The real significance of the decision lies in the fact that the Supreme Court held that a boycott conducted by a labor-union against a firm doing an interstate business was a combination in restraint of trade and the individual members of the union were legally liable. The decision proved a staggering blow to labor unionism, and greatly restricted the use of the boycott as a means of industrial conflict.

Organized labor, however, saw a ray of hope in an amendment to the Sherman Act which had been passed by Congress a few months before the Supreme Court decision in the Danbury Hatters' case—

the Clayton Anti-trust Act of 1914. Samuel Gompers, president of the American Federation of Labor, and other labor leaders asserted that if the Clayton Act had been on the statute books when the Danbury hatters were brought to trial, the Supreme Court would have rendered a different decision. They based their hopeful statements upon a section of the Clayton Act which states: "The labor of a human being is not a commodity or article of commerce. Nothing contained in the anti-trust laws shall be construed to forbid the existence and operation of labor . . . organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profit, or to forbid or restrain individual members of such organizations from lawfully carrying out the legitimate objects thereof; nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade, under the anti-trust laws."¹⁶ Mr. Gompers declared the opening sentence of this section to be "the industrial Magna Charta upon which the working people will rear their structure of industrial freedom". The test case, as far as the boycott is concerned, did not come until 1921, when the United States Supreme Court decided the case of the Duplex Printing Press Company *v.* Deering.¹⁷

The Duplex Printing Press Company of Battle Creek, Michigan, was one of four companies engaged in the manufacture of printing-presses. The International Association of Machinists sought to establish the closed shop in these factories. Three of them acceded to the demands of the Machinists' Union but the Duplex company refused, and continued to employ both union and non-union men. Since the industry was highly competitive, and because the Duplex company did not operate on the union wage scale, two of the other companies served notice upon the union that they would be obliged to return to the "open shop" plan, unless the Duplex company also accepted the closed shop and thus made competitive conditions uniform throughout the industry. An ineffective strike and then a vigorous boycott against the Duplex company were declared.

¹⁶ Clayton Anti-trust Act, Section 6.

¹⁷ 254 U.S. 443 (1921).

Since the principal market for Duplex printing-presses was in and about New York City, the International Association of Machinists concentrated its boycotting activities there. Among the acts of the union in its attempt to enforce the boycott were the following: "warning customers that it would be better for them not to purchase, or having purchased not to install, presses made by the Duplex company, and threatening them with loss should they do so; threatening customers with sympathetic strikes in other trades; notifying a trucking company usually employed by customers to haul the presses not to do so, and threatening it with trouble if it should; inciting employees of the trucking company, and other men employed by customers of the Duplex company to strike against their respective employers in order to interfere with the hauling and installation of presses, and thus bring pressure to bear upon the customers; notifying repair shops not to do repair work on Duplex presses; coercing union men by threatening them with loss of union cards and with being blacklisted as 'scabs' if they assisted in installing the presses; threatening an exposition company with a strike if it permitted Duplex presses to be exhibited; and resorting to a variety of other modes of preventing the sale of presses of Duplex manufacture in or about New York City, and delivery of them in interstate commerce. In some cases the threats were undisguised, in other cases, polite in form but none the less sinister in purpose and effect."¹⁸

The company asked for an injunction to restrain the boycotting acts of the union. The United States District Court dismissed the bill for an injunction, and later the United States Circuit Court of Appeals sustained the lower court, on the ground that the Clayton Act declared legal the existence of labor-unions and that such organizations were not to be prevented from lawfully carrying out their legitimate objects. The court recognized that what the union had done was subject to injunction under the Sherman Act, but held that the law against conspiracies and combinations in restraint of trade had been modified in favor of organized labor by the Clay-

¹⁸ From the opinion of the court as delivered by Mr. Justice Pitney, 254 U.S. 443 (1921).

ton Act amending the Sherman Act. Since the lower federal courts declined to grant an injunction, the Duplex company appealed the case to the Supreme Court of the United States.

The issue in the case as it came before the Supreme Court pertained to the legality of the secondary boycott under the Clayton Act. The International Association of Machinists had sought to restrain the interstate trade of the Duplex Printing Press Company by the use of the secondary boycott, which the court defined as consisting in bringing coercive pressure to bear upon third parties to compel them, directly or indirectly, to withhold their patronage from the boycotted employer. As far as the boycott is concerned, the Supreme Court construed the Clayton Act's exemptions of labor organization and the limitation of the use of injunctions in labor disputes to apply only to disputes involving parties standing in the actual relationship of employer and employees. The court held that it was impossible to justify the conduct of an association of 60,000 machinists, none of whom were employees of the Duplex company "past, present, or prospective", in instigating sympathetic strikes and in conducting a secondary boycott against parties who had no other relation to the Duplex company than that of customers. The effect of this judicial interpretation of the Clayton Act is once more to restrict the use of the boycott to parties who stand in the actual relation of employer and employee, and to prohibit the use of pressure upon third parties.¹⁹

In spite of the decisions of the Supreme Court in the Danbury Hatters' and the Duplex Printing Press Company cases, and of federal and State courts in other cases, the exact legal status of boycotts is still in doubt. Certain it is, however, that the courts do not condemn every form of boycotting. Labor has the legal right to withhold its patronage from anyone against whom it has a just grievance. Less certain, but generally granted, is the right of labor to persuade others to do the same. Usually, the printed as well as

¹⁹ A dissenting opinion, signed by Justices Brandeis, Holmes, and Clarke, held that the actual relationship of employer and employee was not essential to exemption under the Clayton Act; that there was a community of interest among all the machinists, which brought them all within the meaning of the Clayton Act; that Congress in enacting this law was legislating to equalize conditions between workmen and employers as groups rather than between them as individuals.

the spoken word may be used, provided no false statements are made. Any conduct in a boycott, however, which involves coercion or intimidation, the use of violence, or interference with the coming and going of prospective customers is illegal. In particular, pressure upon third parties puts the boycott outside the pale of the law.

Legal status of the lockout. Although the workingman's right to strike, to picket, and to boycott has been very much circumscribed by the courts, no such restrictions have been placed upon the employer's right to lock out his men. To be sure, the right to lock out his employees is not a right of major importance to the employer. What the employer is usually interested in is the uninterrupted conduct of his business. Only rarely does he have occasion to resort to the industrial strategy of a lockout. But if he does, his legal right to do so is unquestioned. If he sees fit to withhold his property from use rather than to use it in the ordinary course of his business, that is his right and privilege. If in discharging his employees individually or locking them out collectively, he violates a time contract for their services, they have cause for legal action against him and may recover damages. But relatively few workingmen hold long-term contracts for services, and in such cases the employer would not be apt to risk declaring a lockout any more than the men would risk calling a strike.

Legal status of strike-breaking. If a strike is in progress, the employer has the unquestioned legal right to keep his plant and business going if he can. To this end he may freely employ strike-breakers, hiring them locally or importing them from other places. The courts have held that he is entitled to adequate police protection in the attempt to operate his plant with the aid of those willing to work; he may even employ guards to protect the strike-breakers, if he deems this necessary. About the only legal restriction upon the employer's strike-breaking activities is legislation in a number of States which makes it mandatory upon the employer under such circumstances in recruiting new workers to state the fact that a strike is in progress against his plant.

Legal restraint of the black-list. To the extent that a black-list is effective, it denies men who are able and willing to work the opportunity to do so. Most of the states have sought to prohibit the

practice of blacklisting, but it has proved impossible to enforce the laws that have been passed. The employer is legally and ethically entitled to know whatever he can learn about the previous record of any man he employs or is considering as an applicant for a job. No law denies him this. If he procures information which in his judgment is unfavorable to the workingman and in consequence either discharges him or fails to hire him, the workingman has no redress. Such information is privileged, and no court will question the employer's reasons for either discharging or refusing to hire a particular workingman. Moreover, in these days of easy communication it is simple enough for any interested person to use the telephone, code messages, secret marks on dismissal cards, and the like to convey information which will result in the blacklisting of a man who for some reason is considered undesirable. The workingman's difficulty, in such a case, is to procure the evidence that someone furnished information designed to blacklist him, and that he failed to hold or to secure his job because of the submission of such information. The law clearly prohibits blacklisting, but in practice it is almost impossible to eliminate it.

It is evident from the preceding discussion of the legal status of strikes, picketing, boycotts, lockouts, and black-lists, that legislative bodies and the courts have sought to restrain industrial conflict by laying down and enforcing certain rules of procedure. Statutory provisions and judicial decisions are today powerful influences in determining both the level and the limits of industrial conflict.

CHAPTER X

INDUSTRIAL PEACE AND INDUSTRIAL GOVERNMENT

AGENCIES FOR SETTLING INDUSTRIAL DISPUTES

To help adjust the differences between employers and employees, to restore industrial peace so that normal production may be resumed, and to protect the interests of the consuming public various agencies have been created for the settlement of industrial disputes. When an industrial dispute has reached the stage of open conflict, with loss of wages to the workingman, with loss of earnings to the employer, and frequently also with loss of service to the public, the immediate problem is to settle the dispute. The more fundamental problem is how to prevent disputes, or at least how to minimize the likelihood of their breaking out into serious conflict.

Existing agencies for the settlement of industrial disputes differ greatly in the degree of compulsion which they involve. This varies all the way from none at all in conciliation and mediation to complete compulsion in the case of compulsory arbitration.

Conciliation. When an open break has occurred in the normal relations between an employer and his organized employees, an attempt is usually made to settle the dispute in an amicable way by conciliation. Conciliation is a mode of settling industrial disputes which involves the coming-together of the parties for peaceful discussion without the intervention or aid of any outsider. An employer may treat directly with the spokesmen of his employees. If a number of employers in some industry, such as the building trades, are involved, a committee of employers may be appointed to carry on negotiations with a committee of the employees. An attempt is made to reconcile the differences between employers and employees concerning the terms of continued employment. If the negotiations fail, the dispute usually soon assumes more serious proportions. Settlement by conciliation keeps the conduct of the

negotiations entirely within the control of the disputants. Success for either organized labor or the employer depends very largely upon skill in negotiation and also upon the willingness of the other party to the dispute to yield some of its demands.

Mediation. Mediation is a method of settling industrial disputes which involves the presence of a third party, whose function it is to help the disputants reach an understanding. The mediator serves as a confidential "go-between". It is not so much his purpose to pass judgment upon the issues at stake and to try to bring about a settlement in accordance with his findings as it is to create a more tranquil atmosphere, which will enable the parties to the dispute themselves to reach an agreement. Mediation calls for discriminating understanding and rare tact in the conduct of delicate negotiations. The prestige of the mediator, no less than his diplomatic skill, is often most helpful in establishing a conciliatory attitude.

The chief occasion in industrial life prompting the offer of friendly mediation is the expiration of a trade agreement and the inability of the employer and his organized employees to agree upon new working terms. The workmen may have made public demands which represent something more than the minimum they would really accept. The employer may be insisting upon terms which are really lower than the maximum he would be willing to grant. To recede from positions taken publicly may prove embarrassing and may be interpreted as a confession of weakness. At times neither side cares to admit that it will consider something different from the announced terms. Under such conditions the mediator has a golden opportunity. If he handles the situation with tact, and if he enjoys sufficient prestige in the community to make it easy for labor and the employer to accede to his suggestions, he can induce the disputants to reach a new working agreement.

The friendly offices of a mediator are usually tendered by some prominent individual favorably known to both employers and employees or by some governmental agency constituted for the purpose. Both the Prime Minister of England and the President of the United States have offered their services in national industrial emergencies. The enormous prestige of such a mediator enables him to secure concessions which the disputants would not grant directly

to each other. If not directly invited to mediate, the occasion that usually prompts the intervention of a high governmental executive is the inconvenience which industrial conflict occasions the public or the menace which it presents to law and order. In order that the friendly offices of a mediator may be readily available "when, as, and if" they are wanted, many governments provide some public agency for the mediation of industrial disputes. Usually the State Industrial Commission, as in Wisconsin, or the Ministry of Labour, as in England, is commissioned to offer its services as a mediator in important industrial disputes. The Conciliation Service of the United States Department of Labor is the most important mediating agency in the United States for industries other than the railways. It acts purely in a mediating capacity, usually upon the invitation of one of the parties to the dispute or of some State authority. Its representatives appear upon the scene of almost every major industrial dispute. Without any mandatory powers, it has been remarkably successful in mediating disputes. The United States government achieved fair success in the settlement of many railway labor disputes under the mediating agencies created by the Erdman Act of 1898 and its amendment, the Newlands Act of 1913. These acts not only designated certain government officials as mediators but made it their duty, if mediation failed, to try to induce the disputants to agree to arbitrate. The present agencies of the United States government in the settlement of railway labor disputes are the National Railroad Adjustment Board and the National Mediation Board created by the Railway Labor Disputes Act of 1934 amending the Watson-Parker Act of 1926. During the World War period the War Labor Board, under the joint chairmanship of William Howard Taft and Frank P. Walsh, functioned very effectively as a mediating body in settling controversies between employers and employees in essential war industries. It acted in more than 1,200 cases. It is high tribute to the patriotism of both labor and employers, as well as to the rare tact and skill of government mediators, that the board was uniformly successful until after war was over.

Mediation is the weakest in authority conveyed of all the agencies for settling industrial disputes. It calls for the intervention of an

outsider, who is limited to the exercise of whatever influence he has with the disputants; he is not clothed with any authority to effect a settlement.

Voluntary arbitration. Voluntary arbitration often grows out of unsuccessful attempts at conciliation or mediation. It is the usual practice for conciliators or mediators to suggest voluntary arbitration if their own attempts to settle the dispute prove to be futile. The consent of both parties to arbitrate must be secured. Voluntary arbitration is a method of settling industrial disputes in which both parties agree to submit the case to an impartial third party by whose decision they agree to abide. Neither side is compelled by law or force to accept the award. The only compelling force in voluntary arbitration is the moral obligation incumbent upon both parties to abide by the decision. Such moral sanction, however, is rarely defied by either the employer or labor, for the repudiation of a voluntary arbitration award made in good faith would alienate public support.

Voluntary arbitration, like mediation, may be either by a private or by a public agency. The usual procedure, if the arbitration is entirely private, is for each side to the controversy to nominate an arbitrator and for the two so selected to agree upon a third, who serves as the chairman of the arbitration board. Such procedure is apt to throw the responsibility for making the decision upon the impartial chairman, but the other members of the board of arbitration serve a most useful purpose in presenting and reviewing the facts in controversy and in facilitating the adoption of the award. Trade agreements in highly organized industries, such as the clothing industry and the building trades, very generally provide for the settlement of possible disputes during the life of the agreement by means of voluntary arbitration. The trade agreements between the Amalgamated Clothing Workers of America and Hart, Schaffner and Marx are the best-known examples in this country of trade agreements which set up a highly successful voluntary arbitration agency for the pacific settlement of disputes. Indeed, most of the disputes arising under these agreements during the past twenty years (the first trade agreement was concluded in 1911) were settled by conciliation and never reached the state of voluntary ar-

bitration at all. The Hart, Schaffner and Marx plan, in which the Amalgamated Clothing Workers of America under the leadership of Mr. Sidney Hillman have coöperated most effectively, has been successfully copied in other clothing centers, though its most brilliant success has been achieved in the original Chicago area.

Public agencies for the voluntary arbitration of industrial disputes have been provided by most governments of industrialized nations or states. Certain officials or boards, either as their main duty or as an incidental function, are designated to act as arbitrators upon the request of the disputants. These public officials, however, may also take the initiative in offering their services, but the offer must be voluntarily accepted before arbitration can begin. Wherever a system of public mediation has been developed, there a system of public arbitration has usually also been devised. It is customary to provide that the public officials designated to offer their services in the peaceful settlement of an industrial dispute shall try to induce the parties to agree to voluntary arbitration if mediation fails.

Voluntary arbitration is a useful agency for the settlement of industrial disputes, even though its use is limited. Wherever labor-unions are fully recognized in industry, voluntary arbitration is a thoroughly accepted mode of settling disputes. Voluntary arbitration is particularly useful in the solution of problems growing out of varying interpretations of a trade agreement. If such disputes cannot be settled by conciliation, arbitration is usually acceptable to both parties. A fair-minded arbitrator can generally settle the controversy. But if the issue at stake involves something of basic importance to either the employer or his workingmen, such as the rate of wages or the hours of work, the arbitrator has his difficulties. Both sides are loath to submit such questions to arbitration; they prefer to fight them out or to effect a settlement between themselves. When such questions are submitted to arbitration, there is no commonly accepted general principle which the arbitrator can apply, nor any body of industrial law, comparable to the common law, to which he can appeal as a precedent. The result is that most arbitral awards represent compromises, which the arbitrators think will prove acceptable to the disputants and commend themselves to the public. Voluntary arbitration is at its best in the interpretation

of an existing trade agreement rather than in the settlement of a controversy leading to the conclusion of a new one. An arbitrator can usually hope to function more successfully as interpreter of the old than as legislator of the new.

Compulsory investigation. The three agencies for settling industrial disputes already described—conciliation, mediation, and arbitration—have this in common: they are all purely voluntary agencies. The next two agencies to be considered introduce an element of compulsion. Of these much the less sweeping in the amount of public coercion which it involves is compulsory investigation. Under such a system an investigation must be made by a board created by the state before the parties to a dispute can legally break their usual industrial relations. The compulsion lies in the submission of the case to impartial investigation. The parties are forced to give testimony and to refrain from strike or lockout during the investigation. The acceptance of the award is voluntary, subject only to public opinion for enforcement.

The system of compulsory investigation of industrial disputes has had its most thorough trial and notable success in Canada. After a prolonged strike in the coal mines of the Province of Alberta in the spring and summer of 1906, the people of western Canada were forced to endure their usual rigorous winter with a totally inadequate supply of fuel. Out of the hardships of that experience grew an insistent demand that some better way be found of settling industrial disputes involving the public interest. The following year the Canadian Parliament passed the Industrial Disputes Investigation Act which contains the principle of compulsory investigation. The purpose of the act as stated in its title is "to aid in the prevention and settlement of strikes and lockouts in mines and industries connected with public utilities". While intended primarily to apply to mines and public utilities, the act may be applied to disputes in other industries if the disputants agree in asking that this be done. Procedure under the act in general is as follows. If a controversy has reached such a stage that a strike or lockout seems unavoidable, the dispute must first be submitted to investigation. The decision to declare a strike or lockout comes first, however.

Employees about to strike or an employer about to declare a lock-out must serve notice upon the government that such is the intention, and a copy of the notice must be sent to the other party to the dispute. The act provides for the appointment of a special board of mediation and investigation. The Minister of Labor calls upon each party to the dispute to name one member of the board, and the two thus chosen are given an opportunity to agree upon a chairman. If they are unable to agree, the Minister of Labor himself appoints the chairman. While investigating the issues in controversy, the board proceeds like a court, but at the same time it is constantly ready to function as a board of mediation in effecting settlement of the dispute. During the period of investigation strikes and lockouts are illegal. When the investigating board has finished its work, its report is given to the public. This report sets forth what the issues in controversy really are and what the board thinks ought to be done about them in order to prevent a strike or lockout. Acceptance of the judgment of the board is not compulsory. Strikes and lockouts are legal after the publication of the findings of the investigating board. Procedure under the act is based upon the assumption that if the public is to suffer the inconvenience and possible hardship of a strike or lockout, it is entitled to know the facts and to have the judgment of an impartial body as to what ought to be done about them. In its appeal to the sanction of an informed public opinion, compulsory investigation is to the settlement of industrial disputes what fresh air and sunlight are to the cure of tuberculosis.

While the act has not succeeded in averting or settling all industrial disputes falling within its jurisdiction, its record of achievements is impressive. During the period 1908-1930, for example, 727 applications were made for the appointment of boards of investigation, and 499 such boards were actually organized. In only thirty-eight disputes for which boards were organized did strikes or lockouts occur. These statistics do not tell the whole truth, however. Several hundred illegal strikes and lockouts occurred during this score of years. While the act provides drastic penalties for such violations, holding the employer liable for a fine of not less than \$100 nor more than \$1,000 for each day of an illegal lockout, and

holding any employee liable for a fine of not less than \$10 nor more than \$50 for each day of an illegal strike, violations of the act have not been vigorously prosecuted.

Colorado in 1915 enacted an industrial disputes compulsory investigation act which was patterned on the Canadian act. It also was the legislative result of a bitter coal controversy, the strike of 1913-1914. It is still on the statute books, though strongly opposed by organized labor.

Compulsory investigation has commended itself to many as a desirable means of settling industrial disputes in which the public interest is large. In such disputes the public, as a "party of the third part", is deeply concerned in knowing the facts. When these have been established and recommendations for settling the dispute have been made, the force of public opinion on the side of the party willing to accept such recommendations is usually sufficient to overcome the opposition of the other party. The principal weakness of this method of settling industrial disputes lies in the opposition of organized labor, not to compulsory investigation but to the prohibition of aggressive tactics during the period of investigation. The success of strikes and boycotts, for example, depends in large part upon their timeliness. Compulsory investigation deprives them of their opportuneness and frequently gives the employer a chance to strengthen his fighting position.

Each of the preceding methods of dealing with industrial disputes—conciliation, mediation, voluntary arbitration, and compulsory investigation—has been incorporated at one time or another in the governmental system provided by Congress for adjusting railway labor disputes in the United States. Since such disputes are apt to impair the entire life of the communities which the railways serve, more elaborate and sustained efforts have been made to adjust labor disputes in the railway industry than in any other. The Erdman Act of 1898, the Newlands Act of 1913, the Transportation Act of 1920 creating the Railroad Labor Board, the Watson-Parker Act of 1926, and the Railway Labor Disputes Act of 1934 all bear witness to the determination of the United States government to deal with railway labor disputes. The Railway Labor Disputes Act of 1934, which has superseded earlier statutes on this subject, suggests a

succession of steps to be taken in the settlement of labor disputes in the railway industry. The act naturally suggests *conciliation* as a first step. Employers and employees are expected to try to reach a mutual agreement. A National Railroad Adjustment Board of thirty-six members, half selected by the carriers and half by labor organizations of the employees, has been established to help them compose their differences. This large board operates through subdivisions having jurisdiction over disputes of designated groups of railway employees. Regional adjustment boards may also be created. If any adjustment board having jurisdiction reaches an agreement, such decision is binding upon both parties. If conciliation fails to effect a settlement, *mediation* is to be tried next. The President is authorized to appoint a board of three mediators, subject to the usual ratification of the Senate. A full-time board of three mediators known as the National Mediation Board, affiliated with neither the railways nor with railway labor, has been appointed. Either party to a dispute can ask for the intervention of this board, or the board can intervene on its own initiative. If mediation also fails, it is the duty of the board of mediation to try to induce the disputants to submit their case to *voluntary arbitration*. If the parties consent, a special board of arbitration is chosen, and the award of such a board is binding on both parties. Finally, if the dispute is not settled by any of these means, and if its continuance threatens seriously to interfere with railways service to the public, the President is authorized to appoint an impartial *emergency board of investigation* to report its findings to him within thirty days. The act is distinguished by its lack of legal compulsion; it sets forth the duties of railway employers and employees in reaching a settlement of their differences, and it suggests the means of achieving this end. But it does not by law compel them to settle their differences. Its main reliance, if the disputants fail to reach an agreement, is upon the pressure of an informed public opinion. This, it is expected, will turn against the party holding out against a peaceful settlement of the dispute. The agencies for industrial peace created by the Watson-Parker Act and the Railway Labor Disputes Act of 1934 have worked remarkably well—the best in our railway history.

Organized labor looks upon the agencies set up under the Watson-Parker Act of 1926 and the Railway Labor Disputes Act of 1934 as a desirable model for the settlement of disputes throughout industry. With the enactment of the Wagner-Connery National Labor Relations Act on July 5, 1935, labor saw the realization in this respect of some of its most cherished objectives. The most important provision of the act is the creation of a new National Labor Relations Board (there had been two predecessor boards), composed of three members and set up as an independent agency within the executive branch of the government. The act hopes to eliminate some of the major causes of industrial conflict by defining the rights of labor and by branding certain labor practices of the employer as unfair. Employees "shall have the right to self-organization" and "to bargain collectively through representatives of their own choosing". Employers may not "interfere with, restrain, or coerce employees" in the exercise of these rights; may not "dominate or interfere with the formation or administration of any labor organization or contribute financial or other support to it"; may not, by discriminating concerning conditions of employment, "encourage or discourage membership in any labor organization"; and may not "refuse to bargain collectively with the representatives of their employees".

The new National Labor Relations Board is expected to function as an independent quasi-judicial body. It acts in cases of disagreement concerning the appropriate collective bargaining agency and may take a secret ballot or use any other suitable method for ascertaining the representatives of labor's own choosing. Violations of the unfair practices section of the act is within the jurisdiction of the board. Like the Federal Trade Commission in its work of maintaining fair competition among businesses, the National Labor Relations Board may issue "cease and desist orders" to employers guilty of unfair practices and may go to the federal circuit courts for orders to or injunctions against such employers. Violation of court orders is of course punishable as contempt of court.

Compulsory arbitration. Government has occasionally taken a very much more compelling position with reference to the settlement of disputes involving the public interest. Arbitration has

sometimes been made compulsory. Under a system of compulsory arbitration, the parties to a dispute are required by law to submit their case to an impartial third party for decision and to abide by the decision rendered. There is compulsion with reference to both submission of the case and acceptance of the award. Failure to do either renders the offending party liable to a penalty.

Compulsory arbitration has had its longest and most successful experience in Australasia. After a maritime strike which paralyzed the vital shipping industry of the island, New Zealand established a system of compulsory arbitration in 1894. The Commonwealth of Australia and the majority of the Australian States followed her example, some as early as 1901 and the last beginning in 1912. Although differing in details, the main provisions of all these Australasian compulsory arbitration plans are similar. All provide for permanent arbitration courts, to which specified classes of cases must be submitted and whose decisions must be accepted. To lighten the work of the arbitration courts, supplementary boards of conciliation have very generally been established, which can act more informally than the courts and with more direct and immediate knowledge of the situation in each industry. If direct negotiations between employers and employees fail to conciliate their differences, the controversies must be taken to the courts of arbitration.

Procedure in the New Zealand court of arbitration is typical of the rest. The jurisdiction of the court is coextensive with the industries of the country; it is exercised, however, only in disputes involving registered associations of employees or registered employers. Registration is voluntary, but since as few as fifteen employees may form a registered union, it has proved easy to extend the principle of compulsion to any desired industry. If either party to an industrial dispute asks for arbitration, the other party must unite in submitting the case, and both parties must abide by the award of the court. In order to equalize competitive conditions throughout the country, the court of arbitration may make its award applicable not only to those directly involved in the dispute but to all other registered unions and to all employers engaged in the same industry. Arbitral awards remain in force until superseded by a new

agreement or a subsequent award, unless the union involved cancels its registration, in which case the life of the award is three years. Strikes and lockouts were unlawful during the first twenty years of the plan, after settlement by arbitration had been initiated; since 1914 they have been illegal, whether application for arbitration has been made or not, for all industrial establishments in which there were registered unions.

In spite of much dissatisfaction, public opinion in Australasia still supports the principle of compulsory arbitration after forty years of experience with it. On the whole, the system has tended to strengthen unionism, because only registered unions can bring disputes before the courts of arbitration. But compulsory arbitration has not succeeded in preventing strikes. It is true that during the first dozen years after the enactment of the New Zealand law not a single strike occurred and New Zealand came to be known as the "land without strikes". But the reputation did not last. Since 1906 New Zealand has had many strikes as bitterly fought as they are fought anywhere else. Australia has never had any immunity from strikes in spite of her compulsory arbitration laws. While all of these strikes have been illegal, in practice it has been found impossible to enforce the penalties of fines and imprisonment in such a way as to prevent the strikes. Organized labor was satisfied with the early awards because they resulted in higher wages, shorter hours, and better working conditions—all the gains which might have been scored through the alternative plan of collective bargaining. This improved status of labor was made possible because of the rapid material progress of Australasia. When this rate of progress slowed up, however, and the demands of the workers often had to be denied, dissatisfaction soon became widespread. Indeed, the more radical among them openly repudiated the whole system of compulsory arbitration. But public opinion as a whole has continued to support it, in spite of its inability to prevent strikes, because it has curbed much industrial rancor and has shortened the periods of industrial strife.

In the United States the only State to experiment with such a system has been Kansas, which passed a compulsory arbitration law in 1920. The Kansas Act applied compulsory arbitration not

merely to transportation and other public utilities, as might be expected, but also to mining and to the industries devoted to the manufacture or preparation of food products and the manufacture of clothing. Since bitter and protracted strife in these industries might imperil the public safety and impair the public health, Kansas declared that the rights of the public were paramount to the private rights of either capital or labor. Strikes, picketing, and boycotts were prohibited in these industries. A Court of Industrial Relations was created which could intervene in any dispute within its broad jurisdiction either upon its own initiative, upon appeal of one of the parties, or upon petition of a group of interested citizens. It was authorized to fix wages, hours, and other conditions of work. Its decisions were binding upon all concerned. While individual workingmen could give up their jobs, and individual employers could go out of business, if they chose not to accept the conditions fixed by the court, neither strikes nor lockouts could be initiated legally.

The Kansas Industrial Relations Court actually functioned for about three years. Throughout this period it was the object of the stormy opposition of organized labor. Labor had opposed the creation of the court; after it was established, many Kansas unionists ignored its existence by joining their fellow-members in other States in conducting nationally called strikes. The court did not succeed in stopping the practice. The court also failed to receive the uniform and vigorous support of employers. When the Wolff Packing Company refused to abide by a decision of the court establishing a temporary minimum wage and regulating hours and working conditions in the packing industry, the Court of Industrial Relations sought an injunction to compel obedience to its orders. The case finally came before the Supreme Court of the United States, which in two successive decisions held the compulsory arbitration law unconstitutional, first because it gave the court power to fix wages in a competitive industry, and secondly, because compulsory arbitration could not be applied to industries which were not distinctly public utilities.¹ While the inference might logically be

¹ Wolff Packing Co. v. Court of Industrial Relations, 262 U.S. 522 (1923); 267 U.S. 522 (1925).

drawn that compulsory arbitration is constitutional as far as the public utilities are concerned, the Kansas Court of Industrial Relations ceased to function after 1923.

Champions of compulsory arbitration, as an agency for the settlement of industrial disputes, rest their case very largely upon the injury and inconvenience which industrial conflict occasions an innocent public that is dependent upon the industry. Whatever limited success compulsory arbitration may have had in some parts of the world, its inherent weakness as an agency for settling the industrial disputes of a capitalistic society lies in the fact that it is a departure from the fundamental principles upon which capitalism is based. It introduces compulsion in the settlement of matters that are normally settled by free competition and negotiation. The use of compulsion in the settlement of industrial controversies, such as those pertaining to wages, is very apt to result in the injection of non-economic considerations. The fairness of a proposed wage increase or decrease may be judged by arbitrators on ethical grounds and measured in terms of its political effects. But arbitrariness in the determination of one share of the social income is bound similarly to affect the size of other shares. To determine fair wage rates ultimately means to pass judgment upon the fairness of returns to other agents in production and of prices to the consumer. The use of compulsion in the settlement of economic controversies logically leads to the substitution, partial or complete, of a system based upon authority for a system based upon competition. In the United States compulsory arbitration is doubtless unconstitutional in competitive industry. Organized labor usually dislikes compulsory arbitration because it deprives unions of the right to strike and is apt to substitute reliance upon some external authority for reliance upon the union as the protector of the interests of labor. On the whole, in this country no more satisfactory methods for settling industrial disputes have been developed than those voluntary, coöperative agencies which have been set up by industry itself. The influence or control of the government has been most wisely exerted when it has been used to facilitate the operation of these voluntary agencies.

PLANS FOR IMPROVING INDUSTRIAL GOVERNMENT AND PREVENTING
INDUSTRIAL CONFLICT

But more important for the cause of industrial peace than the settlement of disputes that have already broken into open conflict is such an improvement in industrial relations as will reduce, if not prevent, future industrial conflict. Is there any hope that human relations within industry can be more satisfactorily adjusted than they have been? Too often for the good of both the employer and the worker this human situation has either been ignored or deliberately brushed aside. Men have often done nothing more than to exercise a Micawber-like faith that "something will turn up". Frank recognition of the economic interdependence of labor and capital, however, leads to sincere attempts to improve relations between these interdependent groups in industry. Certain helpful policies are commending themselves to industrial leaders today, no matter how much they may have been ignored or opposed in the past. These are designed to overcome much of labor's dissatisfaction with the job and its rewards which is so prolific a source of industrial conflict.²

The monotony of the job can at least be counteracted by the alternation of jobs for the same worker and by the establishment of the shorter working day. Whether the eight-hour day and the five-day week can ever become general industrial practice will depend very largely on whether labor can produce as much during the shorter working period as during the longer hours. Shorter hours are not desired by labor at the price of a permanent loss of wages and a resulting reduction in the standard of living.

The job can be made more personal. Labor management and industrial relations departments, directed by men and women who understand the human factor in industry as others understand materials and machines, are greatly improving the morale of many industrial establishments.

The job can and must be made more secure. Insecurity of the job, together with uncertain and inadequate income, constitutes

² Cf. discussion of sources of industrial conflict, pp. 171-175.

the greatest threat and challenge to the capitalistic system. Today this challenge is not falling upon deaf ears, for it is doubtful whether ever before in the modern industrial era so much thought has been given to the problem of providing more permanent jobs for the wage-earners of the world. The hope of economists and business leaders is that, by a more intelligent and unselfish adjustment of productive capacity to consumers' needs than we have had in the past, we shall in the future be able to stabilize business so as to provide more steady jobs. Stabilized business and steady jobs are incomparably superior to any form of relief for the worker. If the hope of providing more steady jobs proves disappointing, employment on public works, unemployment insurance, public doles, and private charity are the only alternatives in a society permeated by the spirit of "rugged individualism". What is more, in the shadows of capitalism stalks the spirit of economic revolution, which seeks to substitute central governmental planning of production for the free initiative of our competitive system.

Efficiency on the job can be more adequately rewarded both in wages and also in the more intangible forms of human recognition. In times of depression the determination of wages presents a peculiarly difficult problem both because wages are the largest element in cost of production (not far from 80 per cent of the total) and at the same time because they represent a large part of the purchasing power of the people which is needed to sustain production. Sharp differences of opinion as to what constitutes the soundest wage policy during a period of depression not unnaturally develop. If during hard times decreases in wage rates prove inevitable in order to restore prosperity, it is to be hoped that they will not be made until all possible economies have been effected in management, productive organization, and marketing. If a reduction in wage rates can help to restore prosperity by lowering prices and stimulating demand, so that annual wage earnings will be greater after the reduction than before on account of more steady employment, it is justifiable. But even if the fall in the cost of living and the ultimate revival of prosperity should give the workingman the same annual real wages as in normal times, his income is still very

moderate. Those who believe in capitalism rather than in communism, as an economic system that better promotes the general welfare, should not relax efforts to increase wages and make possible still higher standards of living. More than anything else, steady annual earnings, large enough to permit the maintenance of decent standards of living when judged by prevailing American conditions, will promote friendly coöperation between labor and capital and help make capitalism an agency for the greatest possible economic and social progress.

It is idle to try to predict what the future holds in store for capitalistic industrialism. Perhaps three types of economic civilization, exemplified by Russian communism, Italian fascism, and American capitalism, will exist side by side for the indefinite future. Perhaps one type will gradually demonstrate its economic superiority in providing for "the greatest good of the greatest number". Who can tell? Whatever plan may be adopted for improving the economic relations of the interdependent groups in industry, for one thing the people of the United States may reasonably hope: that in this country at least, where economic opportunity is still more abundant than elsewhere, and where political power can be democratically expressed, the interests of no group, whether of capital or of labor, shall ever be tolerated above the interests of all the people.

The Industrial Conference called by President Wilson December 1, 1919, sought to capitalize war-time experiences in industry for the adjustment and prevention of future industrial struggles. In its final report the conference stated:

The guiding thought of the Conference has been that the right relationship between employer and employee can be best promoted by the deliberate organization of that relationship. That organization should begin within the plant itself. Its object should be to organize unity of interest and thus to diminish the area of conflict, and supply by organized coöperation between employers and employees the advantages of that human relationship that existed between them when industries were smaller. Such organization should provide for the joint action of managers and employees in dealing with their common interests. It should emphasize the responsibility of managers to know men at least as intimately as they know materials, and the right and duty of employees to have a knowledge of the

industry, its processes and policies. Employees need to understand their relation to the joint endeavor so that they may once more have a creative interest in their work.³

Welfare work. Modern industry abounds with plans for the betterment of industrial relations. Through them all runs the hope of so perfecting industrial government as to minimize the likelihood of serious internal friction. Many employers have sought to humanize industry, to emphasize their treatment of labor as human beings rather than as a commodity of commerce, by establishing welfare work departments. Among the more important welfare activities of representative industrial establishments are provisions for health, such as physical examinations, emergency aid, medical and dental dispensaries, and visiting nurses; provisions for recreation, such as competitive sports, playgrounds and parks, and motion-pictures; provisions for education, including reading rooms and organized instruction; provisions for attractive housing together with thrift plans to encourage home ownership. Welfare work stresses the whole physical and psychological environment of the job rather than what is in the pay envelope. Under the guidance of its wisest proponents, it is intended as an addition to and not a partial substitute for the regular wages of the worker.

Hardly any kind of work calls for deeper understanding of human nature and greater skill, born of the union of talent and experience, in handling human beings. Because such leadership is rare, welfare work has often proved a disappointment to its sponsors. Its chances of success turn almost wholly upon the spirit in which it is done. Since most human beings are best pleased by things they do for themselves, it is wisest to place as much as possible of the actual direction of the welfare work in the hands of representative workers. Labor, particularly where organized into unions, has been skeptical of the purpose of welfare work. It has often looked upon these activities of the employer as the expression of a benevolent but paternalistic feudalism, the effects of which might be to weaken unionism and to increase industrial serfdom. Workingmen are very apt to think that elaborate forms of welfare work must be at the

³ *Report of the Industrial Conference Called by President Wilson* (Washington, 1920), pp. 6-7.

expense of higher wages (a conviction which the frequently quick discontinuance of such work during depressions reinforces) and to resent any invasion of their rights to spend their wages and leisure time as they see fit.

Scientific management and personnel administration. While the plan of "scientific management" of industry—largely the work of Frederick W. Taylor (1856–1915), a mechanical engineer—was developed as a means of eliminating waste from industry, it was also offered in the hope that it would ultimately improve the relations of management and workingmen. Taylor devoted his industrial life to the task of applying science rather than trial-and-error methods to industrial operations; his purpose was to lower unit costs by creating a product with the least amount of waste and friction. Scientific management seeks to find the best way of doing a job. In the long run this will also prove to be the most profitable way for all concerned in production.

The technique of scientific management includes the following principles and procedures.⁴ First must be placed "the development of a science for each element of a man's work, thereby replacing old rule of thumb methods". Motion studies to determine what is a reasonable length of time for any given task are not intended to drive workers at "top speed", but honestly to determine the least amount of effort by both men and machines to which a given job can be reduced. Such studies have greatly increased the productivity of industry. Second, scientific management contemplates the selection and training of the best worker for each job rather than the haphazard methods which have resulted in so much industrial inefficiency and dissatisfaction. Third, it includes standardizing and grouping together all similar tasks, so as to eliminate the wasteful shifting-about of workers to unrelated activities. Fourth, it emphasizes the use of the most efficient tools, and their constant use, so that the worker may get the best results in production. Fifth, it means the establishment of a wage system which allows satisfactory wages to the workman performing a task in the standardized time and at the same time pays a bonus to the workman who does

⁴ F. W. Taylor, *Principles of Scientific Management* (New York: Harper and Brothers, 1919), p. 13.

better than the standard. Sixth, it divides responsibility between workers and management in accordance with their respective functions, instead of placing both work and responsibility for results so largely on the men.

Taylor's plan for the scientific management of industry met with the bitter opposition of organized labor, which continued to his death. Although Taylor fought the unions, his hope and ambition were to help the workingman by showing him how to do his work better and thereby to earn higher wages. But the unions were suspicious that scientific management was largely an "efficiency program" which would inevitably lead to the discharge of some workers and the unemployment of many. The plan of scientific management also aroused the active opposition of many executives, managers, and foremen who disliked the implication that their own ignorance or incompetence had failed to achieve the greater productivity which scientific management makes possible. But in more recent years the opinion of both management and unions has grown more favorable as to the soundness of the basic ideas in scientific management. Scientific management promises to survive as a better way of doing things and of coöperation between labor and management in doing them. The failure of its founder and many of its sponsors to understand and allow for the psychology of the workingman has limited its adoption and usefulness.

One logical application and development of the principles of scientific management has been the creation of personnel departments for the administration of human relations in industry. Under the direction of skilful administrators it is the task of such departments carefully to select the personnel in accordance with job specifications, to promote and transfer workers, to make the physical and social environment of the job as attractive as possible, and in these and other ways to develop and maintain a high morale in the establishment.

Employee representation. Employee representation seeks to do in the economic field what the representative government of democracies has done in the political field. Just as political government has outgrown the town meeting, so industrial government has outgrown the direct personal contacts between employer and employee

which at one time did so much to promote common understanding and good-will. Since it is impracticable in any very large way to restore the old direct personal contacts between employer and employee, a substitute must be found. This substitute has been found in some form of employee representation in the government of industry. Employee representation means the joint participation of workers and management in controlling the conditions under which work shall be done. It may function successfully in shops organized by the regular trade-unions, in company union plants, and in establishments where both union and non-union workers are employed. Shop committees, which operate in the departments of a plant, and works or industrial councils, which operate in an entire plant or industrial district, are concrete forms of industrial democracy in which there is employee representation.

Employee representation was devised to help settle industrial grievances, to reduce industrial conflict to a minimum, and to promote coöperation between men and management in solving the problems of production. While the interests of labor and capital are not identical, there is sufficient harmony of interests to warrant organized efforts to restrict their conflict to issues, such as wages, on which their interests naturally diverge. "The representative principle is needed", says the Report of the Industrial Conference called by President Wilson, "to make effective the employee's interest in production, as well as in wages and working conditions. It is likewise needed to make more effective the employer's interest in the human element of industry." ⁵

Plans for employee representation, though antedating the World War, received their greatest impetus from the industrial experiences of this period. They were urged very strongly in post-war days as a means of conserving the spirit of coöperation between labor and capital, which union against a common foe had created. Hundreds of business enterprises in the United States developed some form or another of employee representation. Among them were some of the largest concerns in this country like the Standard Oil Companies, the Pennsylvania Railroad, and the Bethlehem Steel Corporation. Par-

⁵ *Report of the Industrial Conference Called by President Wilson* (Washington, 1920), p. 10.

ticularly instructive have been the Trade Board of Hart, Schaffner and Marx, and similar coöperative agencies between other clothing manufacturers and the Amalgamated Clothing Workers' Union. Equally celebrated is the coöperation between the regular unions and the management of the Baltimore and Ohio Railroad, which plan has been adopted by other important railways, including the Canadian National Railway, the Chesapeake and Ohio, the Chicago and Northwestern, and the Chicago, Milwaukee, St. Paul, and Pacific Railroad.

While many large and important employers have accepted the principles of employee representation, the plan has met with the skepticism of some and aroused the determined opposition of others. There has been skepticism concerning the ability of labor to contribute very much of value to the management of an enterprise. But labor has made so many helpful suggestions for the improvement of efficiency in the productive processes of so many different plants that this skepticism does not appear to be very well founded. Moreover, the improved atmosphere of a plant in which suggestions from workers concerning the management of their jobs are not only welcome but also receive recognition has converted many a doubting Thomas among employers to the merits of the new plan. What opposition employers have made to employee representation has largely been based on the conviction that it represents an invasion of the employer's right to run his business as he sees fit. Many employers are very jealous of their prerogatives in this respect. As entrepreneurs they feel that their financial risks and responsibility warrant their exclusive control and management of the enterprises in which they are interested; that to give labor a voice in the management of business without its assuming a share in the financial responsibility is to multiply the risks of doing business. But this reasoning is not flawless. True it is that the capitalist risks his property in business, and if the business fails he may lose all. True it also is that if the workingman loses his job he may possibly be able to secure another without great loss of working time. But it is not true that labor assumes no financial risk in industry. Every serious and prolonged depression, with its reduced wages, lowered standards of living, and temporary or permanent unemployment, attests the

contrary. It might be true if there were no interruption in the payment of wages, even though they had to be somewhat reduced during such periods of depression. But such a Utopia still belongs very largely in the realm of economic dreams, for modern economic society has only made a bare beginning in unemployment insurance, with payments that represent only a small fraction of the regular wages. Since labor does have a financial risk in industry, it is not very likely that its representatives will abuse any powers of management they may attain; the use of power is sobered by responsibility for results.

What opposition some leaders of organized labor have had to plans of employee representation has sprung very largely from the fear that such plans might weaken ordinary trade unionism, or even be accepted as a substitute for it. But in essence, unionism and employee representation are not antagonistic; they are complementary. Unions are fighting organizations. They have found their most distinctive field of usefulness in negotiations for the attainment or maintenance of higher wages and better working conditions. They are inter-plant organizations, coextensive with a trade or an industry. Employee representation plans, on the other hand, provide the "home rule" or local government of industry. They have found their greatest usefulness in settling local grievances, which only those best informed concerning local conditions can do most effectively, and in promoting coöperation between labor and management in all the problems of production.

Employee representation is no magic formula for the establishment of peace in industry. Like political democracy, industrial democracy is a way of life. Both allay a good deal of the unrest that is characteristic of absolutistic régimes. But they must be lived in spirit as well as in outward form. The success of employee representation depends upon the liberal-mindedness of employers, the intelligence of labor as well as the wisdom of its leaders, and the conditions under which the plan is introduced. Both employers and workers must be ready for whatever form of industrial democracy is established, if it is to succeed. Without such active coöperation no plan for representative government can ever become anything more than a blue-print plan. Freedom without a developed sense of re-

sponsibility usually leads to anarchy and ruin. But good representative government in industry can eliminate much of the friction between men, which, as far as productivity is concerned, is quite as essential as removing the friction of machines.

Company unions. One striking post-war development of plans for employee representation has been the rapid growth of company unions. Company unions are restricted in membership to the employees of a given plant or business corporation and, in contrast to the ordinary trade-unions, are characteristically unaffiliated with any larger outside organization. Initiative in their organization is usually taken, directly or indirectly, by the employer. Many employers take the position that they will negotiate with their own employees concerning wages and all other pertinent matters, but they will have nothing to do with outside professional labor leaders who serve as the expert negotiators of employees belonging to the ordinary unions. Company unions, inspired and usually controlled by management, have been the result of this attitude. The company union long maintained by the Pennsylvania Railroad is a notable example.

Company unions attained their greatest development in the United States during the years following the World War. They are more characteristic of large than they are of small establishments. It has been estimated that every third organized employee is a member of a company union rather than of an ordinary trade-union. Their greatest numerical strength lies in the manufacturing industries.

The purpose of employers in encouraging and supporting company unions has been to keep negotiations concerning industrial obligations entirely "within the family." By cooperating freely with unions of their own employees, employers have hoped to help develop a fine industrial morale. The high morale of the working force of any plant or business corporation is a most valuable asset. The trade-union movement, however, has been hostile to the plan of organizing company unions. Only very rarely are members of the company unions also members of the ordinary trade-unions. The glaring weakness of company unions from the standpoint of the workers is that they deny labor full freedom of choice in select-

ing its own business agents to conduct the negotiations of collective bargaining. If workingmen have the right to bargain collectively, they should also have the right to select their own spokesmen. The fact that the representatives of company unions are on the pay-roll of the company handicaps them in urging the claims of their fellow-employees in the strongest possible terms for fear of giving offense to the management and losing their own jobs. If management is disposed to do so, the representatives of company unions can be much more easily influenced or controlled than can the business agents of national trade-unions. What is more, company unions cannot effectively resort to strikes and other forms of industrial strategy to gain their ends. While company unions have proved acceptable to both employers and workingmen in some instances, they cannot be regarded as permanent and universal solutions of the problem of improving human relations in industry. Under the National Labor Relations Act not the company union necessarily but the *company-dominated* union is illegal—unless the Supreme Court in the future decides otherwise.

Profit-sharing and copartnership. While plans for employee representation offer labor the opportunity to participate in the control of industry, profit-sharing is a plan for labor's participation in the net earnings of industry. Profit-sharing is the older of these two plans for improving industrial relations, but today employee representation has much the wider appeal. Under a system of profit-sharing the employees of a business receive, in addition to their regular wages, as determined by prevailing conditions, a share, fixed in advance, of the profits of the business. Profit-sharing is not a substitute for regular wages, but a supplement to them. Almost without exception profit-sharing plans have been installed upon the initiative of the employer. They are based upon his conviction that the greatest cause of industrial unrest is dissension over the distribution of the joint product of labor and capital and that the best corrective is to give labor a share in the larger profits that are apt to accrue when labor and capital coöperate efficiently.

Not all plans commonly considered forms of profit-sharing represent true sharing of profits. Some of them are pseudo-forms, such as Christmas gratuities to employees and the payment of arbitrary

cash bonuses at the end of the year. The principal types of true profit-sharing include the payment of cash at the end of the business year, the distribution of debenture bonds or shares of stock in the enterprise, and the setting-aside of an annually increasing fund for the benefit of employees from which old age pensions or family annuities can be paid. Employers are naturally partial to plans of payment which tend to give their employees a growing financial stake in the business, because this will stimulate their future productive efforts and develop their loyalties. While the share of profits, agreed upon as accruing to labor, varies in the different plans of profit-sharing, it is usual to pay labor's share to the individual employees approximately in proportion to their regular compensation.

Profit-sharing has been practised for nearly 100 years. A Paris house-painting and decorating firm, the Maison LéClaire, established profit-sharing in 1838 and has had such distinguished success with the plan ever since that the firm is now owned and operated by the workers. Lever Brothers, the well-known British soap manufacturers, established their successful profit-sharing plan in 1909. In the United States some of the best-known examples of profit-sharing are the plans of the Nelson Manufacturing Company of St. Louis, the Dennison Manufacturing Company, the Procter and Gamble Soap Manufacturing Company, the William Filene's Sons Company, Sears, Roebuck and Company, and the Ford Motor Company.

Although some employers regard profit-sharing as the plan *par excellence* for the improvement of industrial relations, it is doubtful that profit-sharing will ever become very general or that it can contribute very much to the promotion of industrial peace. The most that can be said for it is that profit-sharing has proved neither a complete success nor a complete failure. Its primary objective is obviously to stimulate such productive efficiency as will increase the profits to be distributed, to which end the promotion of industrial peace is a necessary but subordinate purpose. Its greatest appeal has been to employees occupying executive or managerial or sales promotion positions; in general it has succeeded wherever it has been possible distinctly to correlate results with individual effort. The success of profit-sharing also largely depends upon the

compactness of the group with which it is tried. The solidarity of a working group is essential to prevent those wastes of time, materials, and finished products of which industrial slackers are guilty and which, as far as profits are concerned, may bring to naught the best efforts of the efficient and industrious.

From the point of view of the rank and file of workers the most serious limitation of profit-sharing is the difficulty of correlating shares in profits with individual efforts. The profits or losses of a business are to a large extent attributable to factors entirely beyond the sphere of control of labor, such as changes in the general level of prices, the cyclical movement of business, good or bad judgment on the part of the management, the severity of competition, and general trade policies. Profit-sharing plans arouse the expectation that there will be profits to divide. If labor does its best, and if in spite of such honest efforts there are no profits to distribute, it may prove embarrassing for management to explain the situation, and profit-sharing is apt to lose what appeal it had. Moreover, even when there are profits to distribute, the problem of their distribution may generate fresh conflict between labor and management. Organized labor, it may safely be said, is almost always suspicious of and usually hostile to the system. Union leaders assert that profit-sharing is a covert plan of the employer for reducing regular wages or for keeping them low. They say that the "prince bountiful" rôle of the employer in distributing profits is a mask concealing his real self. They insist that profit-sharing is cunning strategy to weaken the labor movement. It must be admitted that the hostile attitude to organized labor of many employers who extol and practice profit-sharing has furnished tangible support for these convictions.

A variation of profit-sharing to which interest has shifted in recent years is the financial copartnership of labor and capital. Such copartnership exists in any corporation when its employees are encouraged and aided to acquire voting shares of its stock. It is a plan by which the laborer may become a capitalist. The management of a corporation may encourage its employees to acquire stock by paying them bonuses which can be applied on the payments for the stock, or by offering the stock at attractive rates when compared with market values. The stock so acquired may be held in the names

of individual employees, or it may be held jointly for their benefit by an association organized for the specific purpose. Through such an association in the case of the Philadelphia Rapid Transit Company labor was given its own special representatives on the board of directors.

The copartnership idea has taken form in the employee stock acquisition plans of many leading corporations. In the case of the Philadelphia Rapid Transit Company employees had acquired more than one third of the common stock by 1927. In 1934 the American Telephone and Telegraph Company reported that more than 100,000 employees of the Bell System were stockholders in the company. More than 300 important corporations have developed employee stock ownership plans in the United States. Conspicuous among them are the Bethlehem Steel Company and the United States Steel Corporation, General Electric and Westinghouse Electric, Eastman Kodak and Procter and Gamble, International Harvester, Swift and Company, and the Standard Oil Companies. Impressive as is the list which these corporations represent, and large as are the absolute amounts of stock, amounting to hundreds of millions of dollars, held by employees, the inescapable fact remains that the wage-earners of these corporations, as distinguished from the officers and managers, held a negligible amount of the stock.⁶ The significance of the movement looking toward the financial copartnership of labor and capital, as a means of stabilizing industrial relations, has been very much exaggerated.

The most important objection to copartnership, from the points of view of both employees and employers, is the financial risk involved. Most workmen should invest their all-too-meager savings in the safest forms of investment available, such as homes, interest-bearing deposits in savings-banks, and high-grade government bonds. They are in no position to take the chance of losing their savings by assuming unusual financial risks. What they need is security of their hard-earned principal, even though this means a low return, rather than the opportunity to make speculative profits.

⁶ Cf. National Industrial Conference Board, *Employee Stock Purchase Plans and the Stock Market Crisis of 1929* (New York, 1930); U.S. Federal Trade Commission, *National Wealth and Income* (1926); E. Davis, *Employee Stock Ownership and the Depression* (Princeton University, 1933).

Trade agreements. Perhaps the most realistic plan of all for composing the inevitable conflict of interests between employers and employees is offered by the trade agreement. Organized labor certainly regards trade agreements as the most practical, even if least idealistic, method of compromising the differences between employers and employees and of improving industrial relations. Trade agreements record in writing the collective bargain entered into by the representatives of organized labor and of employers concerning conditions of work. They may apply to a particular plant or to an entire industry within a given geographic region.

When trade agreements are first drawn, they are usually very simple, applying to such obvious matters as wages and hours of work. With the continued success of this method of adjusting relations, however, trade agreements tend to become more inclusive and detailed. Ultimately, they may cover most contentious subjects within industry, and even set up formal agencies for both the settlement and the prevention of industrial disputes. They have sometimes been described as industrial constitutions, or more aptly as industrial treaties. They usually run for a specified period of time, toward the expiration of which new agreements may be negotiated and put into effect.

The popularity and strength of trade agreements as a form of industrial government are attributable to their attempts to adjust differences peacefully rather than by resorting to force, to their frank recognition of both a conflict and a harmony of interests in industry, and to the fact that for their successful negotiation both employers and organized labor are directly responsible.⁷

⁷ The policies of organized labor discussed in Chapter VIII, "Labor-Union Policies," are largely translated into action by means of trade agreements.

CHAPTER XI

POPULATION AND PRODUCTION

The familiar lines of Oliver Goldsmith's *Deserted Village*,

Ill fares the land, to hastening ills a prey,
Where wealth accumulates, and men decay,

suggest a proper warning concerning overemphasis upon wealth production and accumulation at the expense of the development of human personality. Wealth production and accumulation are, of course, essential to the gratification of the wants of men, but it is the character of men's wants that reveals the nature of their civilization. Wealth is produced both for man and by man. The labor of the population of a country, manual, mental, and managerial, largely determines the character and efficiency of its wealth production. Changes in both the quality and quantity of the population profoundly affect the economic life of every people.

QUALITATIVE POPULATION PROBLEMS

The qualitative aspects of population problems have not commanded the same attention from economists as quantitative changes in population, which have been seriously studied for a century and a half. Biologists, sociologists, and other specialists are much concerned with them. If by the quality of a people is meant their capacity to do and to enjoy, it is obvious that the quality of the population has much to do with economic life and progress. Quality in peoples as in individuals is both inborn and acquired; heredity and environment always interact in creating qualitative differences. Knowledge and the power to do are passed on through the cultural environment, but the capacity to acquire and to use is largely hereditary. How much of these qualitative differences is attributable to heredity and how much to environment it is impossible to say be-

cause the factors involved are not susceptible of precise measurement.

One qualitative population problem of much concern is the so-called differential birth-rate. It is well-known that the fertility of certain groups in the population is much higher than that of others. In general the groups at or near the bottom of the economic scale are more prolific than the middle and upper groups. If the differential mortality is not correspondingly heavy, it is apparent that the greatest expansion in numbers is at the bottom of the economic scale and that the middle and upper groups will not long maintain their respective ratios in the total population. Whether the fact of this differential birth-rate is of any social significance depends upon what one's assumptions are concerning the hereditary quality of the various economic and social groups. If the middle and upper groups owe their positions largely to the superior opportunities which they have had, and if there is as much native ability, which has merely been denied opportunity, at the bottom of the economic scale as at the top, then the differential birth-rate is of no particular importance. But if these assumptions are not well founded, then it is of tragic significance. To describe the situation of a differential birth-rate in which the better and more successful elements of the population are failing to hold their own, Professor E. A. Ross coined the suggestive term "race suicide".¹

The subject of "eugenics" is concerned with and the eugenics movement is directed toward the relative increase of the superior hereditary strains and the relative decrease of the unfit.² The positive program of eugenics is befogged with uncertainties as to the identity of the psychophysically most fit and beset with all the vagaries of choice in the selection of matrimonial partners. On the other hand, to the extent that the eugenics movement aims to preclude through segregation or sterilization the propagation of the

¹ Address before the American Academy of Political and Social Science, Philadelphia, April 12, 1901, on "The Causes of Race Superiority". Reprinted in *Foundations of Sociology* (New York, 1905), p. 383. Originally the term was literally applied to the differential birth-rate of races rather than of social groups within a population.

² The term "eugenics" (from the Greek meaning "well-born") was first used by Sir Francis Galton in 1883.

mentally and physically defective, particularly in cases where such defects are clearly hereditary, it rests on surer grounds and its program is more practical. Society can neither afford the progressive dilution of its own blood nor the steadily mounting economic burden of caring for rapidly multiplying defective family strains.

QUANTITATIVE POPULATION PROBLEMS

Important as are the qualitative aspects of population problems, it is the quantitative aspects that have chiefly arrested attention. The size of the population seeking to make a living within a given geographic area is a fundamental factor in determining the economic life of the people. New and undeveloped countries invite larger populations for the proper development and utilization of their resources; the colonies established on the American continent are a familiar example. In older and more thickly populated lands there may be actual pressure of population upon the means of subsistence, unless an intensive economic life has been developed which finds an outlet in world markets. Parts of the Orient have long suffered from such population pressure. Belgium, on the other hand, with the greatest density of population per square mile of any country in the world, has compensated for this fact by the intensive industrialization of her economic life.³ Population growth has always been and is today one of the most dynamic forces in the economic, social, and political life of any people. Its international implications are well known, Italy and Japan furnishing contemporary illustrations.

From earliest times and well into the modern industrial era large populations were associated in the thinking of people with economic and political strength.⁴ As long as man's power over the forces and materials of nature kept growing more rapidly than the population, so as to give assurance of abundant and regular food supplies and other means of living, this was largely true. When opportuni-

³ The area of Belgium is 11,752 square miles; the population in 1933 was 8,213,449; the density of population per square mile, 699. The United States in contrast has a density of population of only 41 per square mile (1930).

⁴ Perhaps the biblical admonition "Be fruitful and multiply, and replenish the earth" (*Genesis IX:1*) had something to do with this.

ties are plentiful, growing populations are a help rather than a hindrance in the development of a rich and diversified economic life. A large population under such conditions may mean greater productivity and general prosperity.

The industrialization of economic life beginning in England about the middle of the eighteenth century and gradually spreading through most of the Western World brought new population problems. The substitution of power-driven machinery for much hand labor led to considerable unemployment during the early part of the industrial period. Ultimately, increased production with lower costs per unit of product resulted in an increased demand and the reabsorption in one industry or another of most of the available labor. But the transitional difficulties were immense. What is more, it soon appeared that the cheaper labor of women and children could be used in the factories to operate many of the new machines. Children, even very young children, were able to work, and there were no social prohibitions against employing them. Wages fell. Poverty was extreme. It took the combined efforts of parents and children to provide even a low scale of family living. Since children were an economic asset rather than a liability, population grew. The misery of the working classes, the relationship of population to wealth production, attracted the attention of scholars and reformers.

The Malthusian theory of population. Chief among these was Thomas Robert Malthus, who in 1798 published the first edition of his celebrated *Essay on the Principle of Population*. In it he announced a doctrine and drew conclusions which have been the storm-center of discussions on population ever since. The book is one of the great classics of economic literature. Charles Darwin, who developed the modern theory of evolution in his *Origin of Species* (1859), acknowledged his indebtedness to Malthus. Malthus was a clergyman and reformer whose conclusions and program of action were, however, sharply at variance with those of some of his contemporaries. He became convinced that much of the misery of people was due to an excessive growth of population, and he was the first to try to establish a theory of population with such scientific evidence as he could assemble.

The essence of the Malthusian doctrine is that population increase, like that of the lower animals, has a tendency to outrun the food supply. By way of illustration Malthus pointed out that population, if unchecked, tends to increase in a geometric ratio: 1, 2, 4, 8, 16, 32, 64, etc. He estimated that population had a tendency to double every twenty-five years. On the other hand, the best that can be hoped for as far as the food supply is concerned is that it be increased in an arithmetical ratio: 1, 2, 3, 4, 5, 6, 7, etc. The inevitable consequence of these comparative increase tendencies is pressure of population upon the means of subsistence, and the poverty and misery of human beings.

Two classes of checks prevent population from actually outrunning the food supply—the one, positive and the other, preventive. The positive checks to population increase operate through a high death-rate. Disease, plague, pestilence, epidemics, bad housing, urban congestion, famine, and war are the most important of such positive checks. The preventive checks operate through a low birth-rate. According to Malthus the principal preventive check was “moral restraint”, by which he largely meant the postponement of marriage.⁵ He came to recognize the influence of the standard of living in raising the age at marriage. Limitation of numbers, he insisted, was essential to improvement in the economic lot of mankind.

Appraisal of the Malthusian doctrine. What may fairly be said in appraisal of the Malthusian theory of population? Most economists and sociologists accept it, though they make various modifications in it. The basic premise of the theory, that population has a *natural* tendency to increase faster than the food supply, is most widely accepted. It is the biological part of the doctrine which Charles Darwin made the basis of his great theory of evolution. If the human race actually reproduced itself in accordance with its physiologically maximum possibilities it would soon overrun the earth. Malthus contended that the food supply was the limiting factor; that there was inevitable pressure of population upon the means of subsistence with resulting low standards of living and

⁵ Present birth-control methods are of comparatively recent origin. The modern birth-control movement is sometimes described as Neo-Malthusian.

misery for people. The only escape he offered was postponement of marriage.

The pessimistic conclusions which Malthus drew in reasoning from his major premise have not generally been substantiated by experience. Man's control over both the food supply and population increase, except in the most static and unprogressive societies, has proved very different from what Malthus supposed or could very well be expected to foresee. Agricultural technology based upon scientific research has enormously increased actual and potential food supplies, and modern means of transportation have enabled nations to draw upon the ends of the earth for their sustenance. To be sure the world's population has also greatly increased with the production of larger food supplies. It is estimated that the European population, including peoples of European extraction, has more than trebled since Malthus published his celebrated essay, and the population of the world has more than doubled. During the same period, however, the standard of living has risen rather than fallen, and the abject misery prophesied has been averted. Evidently the relation between population and resources has improved rather than grown worse.

In large parts of the world what increase in population has occurred is due more to a sharply falling death-rate than to a mounting birth-rate. The discovery of the germ theory of disease and the conquest of certain diseases through sanitation and the use of anti-toxins and serums have appreciably lengthened the span of life expectancy. The most striking progress has been made in reduction of infant mortality and successful fights against many of the diseases that threaten the lives of young adults. Reducing the ravages of death among these groups naturally leads to population increase, since they are the groups that will reproduce themselves. The least progress has been made in combating the degenerative diseases of maturity and old age. So great have scientific and medical triumphs been that in many countries the death-rate has been cut in two and even reduced to one third of what it was when Malthus wrote. The most advanced nations now have death-rates under 15 per thousand of population.

New factors sharply affecting the birth-rate have developed since Malthus' day and largely prevented the predicted population pressure. Chief among these are the democratic movement beginning with the American and French Revolutions, which exalts the individual, whets ambition, and limits numbers when too many children per family prove a drag on the upward climb; the woman's movement, which is effecting the social, economic, and political emancipation of women; the rising standard and scale of living, which stimulate demand for more of the good things of life and greater leisure in which to enjoy them; the cost of having and rearing children; and Neo-Malthusianism, which emphasizes the volitional factor in the increase of family size and suggests the use of contraceptive means for limiting the number of children. The result of the operation of these and other forces is that the birth-rate has been declining in most Western nations from the old-fashioned 50 or more per thousand population to half that number or less.

The dire consequences of population pressure anticipated by Malthus, whatever the natural tendencies in population increase may be, have not been experienced generally because of man's growing control over both the food supply and the birth-rate. Population increase is no longer solely upon a biological plane limited by means of subsistence; psychological, sociological, and economic influences are rapidly becoming predominant. This does not mean, however, that there is no longer a quantitative population problem. It is improbable that there can be such constant improvement in the technology of production as to banish the specter of over-population. All of the arable areas of the world may be drawn upon for subsistence, but sooner or later a limit is reached and man's productive efforts must meet with diminishing returns. Malthus' forebodings have not come true largely because of the amazing technological progress of the industrial period just getting under way during his lifetime. As far as the future is concerned, it is highly probable that mankind will have to rely upon a planned and controlled birth-rate to escape the dire consequences which Malthus foresaw.

The optimum population. For any given economic area and prevailing technology of production there is an optimum population which will secure the highest per capita productive results. Malthus

assumed such limited areas and a given technique of production. A country may be under-populated as well as over-populated from the standpoint of the most effective production. The territory that is now the United States was under-populated in our colonial days. It is reasonable to conclude that parts of the Orient are at present over-populated. When more people are needed to develop the resources of a country, to secure the advantages of specialization in production and of large-scale industry, to provide and support the many arrangements and institutions which make for a higher cultural life, it is safe to conclude that the optimum population has not yet been reached. But when with growth in numbers life becomes harder rather than easier, worse rather than better, it is equally safe to conclude that for the given conditions there is too great density of population. Economically, the most effective population is reached when the per capita production of goods stands highest.

Population pressure relieved by emigration. From earliest times to the present men have sought to escape population pressure by migrating to regions of greater opportunity. As methods of locomotion and means of transportation were developed and improved, wider and more distant territories became available. The New World was discovered. Old continents were opened up. Nations established colonies. New nations were founded. Everywhere the world's resources were developed at an accelerating pace. Trade flourished, brought prosperity, and created still larger economic opportunities. In the absence of barriers to migration men sought to improve their lot by "pulling up stakes" in the home land and beginning life over again in the new. The most extensive, prolonged, and influential movement of this sort in the history of the world was the emigration of European peoples to the Americas, Africa, parts of Asia, and Australasia. European institutions and culture were established everywhere. The United States became the destination of a mighty European exodus. After 300 years of emigration (a human stream fed by every European people) problems of immigration control began to develop. While every nation is concerned both with the emigration of its own people and the number and quality of the immigrants seeking to cross its borders, the United States has been chiefly confronted with an immigration problem rendered acute by the large

numbers who sought admission during the first decades of the present century.

FACTORS CREATING THE IMMIGRATION PROBLEM IN THE UNITED STATES

During the past century and a half more than thirty-five million persons have been admitted to the United States as immigrants. Until a score of years ago no serious attempt was made to control this flow of immigration. America was a new country, and a large population was needed for its greatest economic development. Accordingly, people who came here in the expectation of making this country their permanent home were welcome. And the country in its turn proved a powerful magnet. In the beginning it offered an abundance of land for the "land-hungry", which meant easier conditions of living. It offered the social equality of the frontier, where every man must stand on his own feet. As the country became more settled, there was still the prize of higher wages than older countries could offer, which meant higher standards of living. For most people, too, there was the lure of political liberty and religious freedom and public education. It was for such reasons that people left the old country and migrated to the new.

As long as the movement of immigrants to a new country resembles a stream that adds to the productiveness of the land, there is no problem of control. But should the movement become a tidal wave and threaten submergence and destruction, some form of control becomes inevitable. This was the situation in the United States shortly before the outbreak of the World War. The developments of this world upheaval hastened the extension of effective control over immigration by the United States government.

Volume of immigration. One of the most important factors in making the people of the United States conscious of an immigration problem was the greatly increased volume of immigration, that became most noticeable in the decade prior to the War. No satisfactory records of immigration were kept until 1820. It is estimated, however, that in the period 1776 to 1820 only about a quarter of a million immigrants came to the United States. Beginning with 1820 accurate records of immigration are available, but no official record

of the ebb-tide of emigration was begun until 1907. The reason for this was that during the nineteenth century the number of outward-bound emigrants, returning to their home lands, was relatively small. For the twenty-year period 1907 to 1927, during which complete records were kept, the number of departing emigrants was somewhat more than 50 per cent of the number of arriving immigrants. The following table reveals the rising tide of immigration, temporarily held back in the sixties by the Civil War, in the nineties by the severe economic depression, and in the twenties by the World War.

VOLUME OF IMMIGRATION TO THE UNITED STATES	
<i>Period</i>	<i>Total Number of Immigrants</i> ⁶
1820-1830	151,824
1831-1840	599,125
1841-1850	1,713,251
1851-1860	2,598,214
1861-1870	2,314,824
1871-1880	2,812,191
1881-1890	5,246,613
1891-1900	3,687,564
1901-1910	8,795,386
1911-1920	5,735,811
1921-1930	4,107,209

These successive waves of immigration brought about a great change in the composition of the American people. How rapidly the foreign-born and children of foreign-born parents were increasing in this country is shown by the following table.

TOTAL WHITE AND FOREIGN WHITE POPULATION OF THE UNITED STATES ⁷		
<i>Year</i>	<i>Total White Population</i> ⁸	<i>Percentage of White Population Foreign-born or of One or Both Foreign-born Parents</i>
1850	19,553,068	....
1860	26,922,537	....
1870	33,589,377	32.2

⁶ *Annual Report of the United States Commissioner General of Immigration* (1931), p. 218.

⁷ *Immigrants and Their Children*, U.S. Census Monograph VII (1920), p. 6.

⁸ All Negroes, Indians, Chinese, and Japanese are omitted.

1880	43,402,970	34.2
1890	55,101,258	37.4
1900	66,809,196	38.7
1910	81,731,957	39.5
1920	94,820,915	38.4
1930	108,864,207 ^a	35.6

Such a rapid increase in the foreign-born element made the process of assimilation increasingly difficult and so helped precipitate the immigration problem.

The changing type of immigrant. Of even more startling significance than this rapid increase in the volume of immigration was the changing type of the immigrants that came. Prior to 1890, as the following table shows, every decade brought a large preponderance of immigrants from Northern and Western Europe. But beginning with the decade of the nineties the majority of the immigrants for three decades came from Southern and Eastern Europe.

PERCENTAGE DISTRIBUTION OF IMMIGRANTS ACCORDING TO SOURCE,
1820-1930 ¹⁰

<i>Period</i>	<i>Northern and Western Europe</i>	<i>Southern and Eastern Europe</i>	<i>Per Cent of Total Immigration</i>
1820-1830	68.0	2.2	70.2
1831-1840	81.8	1.0	82.8
1841-1850	93.0	0.3	93.3
1851-1860	93.6	0.8	94.4
1861-1870	87.8	1.4	89.2
1871-1880	73.6	7.2	80.8
1881-1890	72.0	18.3	90.3
1891-1900	44.6	51.9	96.5
1901-1910	21.7	70.8	92.5
1911-1920	17.4	58.9	76.3
1921-1930	31.3	29.0	60.3

Belgium, Denmark, France, Germany, Great Britain and Ireland, the Netherlands, Norway, Sweden, and Switzerland—the so-called “old” sources of American immigration—furnished 81 per cent of

^a Calculated from data in *Abstract of the Fifteenth Census of the United States*, 1930, Table 23, p. 80.

¹⁰ *Annual Report of the United States Commissioner General of Immigration* (1931), p. 218.

the immigrants that came to the United States prior to 1890. Since that time they have furnished about 25 per cent.

This shift in the main sources of American immigration from Northwestern to Southeastern Europe was of momentous significance. Without in any way disparaging the many excellent qualities of the "newer" immigrants, it may be said that this shift meant the mixture here under one government of peoples differing in race, customs, and conventions. It meant a confusion of tongues that rivaled the Tower of Babel. It meant a rapid increase in illiteracy, for the new immigrants came from countries where educational opportunities for the masses were few. It meant the infiltration of millions of people unused to the exercise of either rights or responsibilities under popular government. This shift in the sources of American immigration more than any other single factor led to a change in the American policy toward immigration.

The urban preference and segregation of the immigrant. The problem of assimilating the immigrant was greatly accentuated during the last quarter-century, or thereabouts, by changed economic conditions in this country. Free land had practically disappeared. Industry was coming to occupy a relatively more important position in the economic life of the people than it had during the earlier years when agriculture was dominant. The earlier immigrants were largely from agricultural districts and for the most part established themselves upon the land here. They helped make the United States one of the richest and most prosperous of agricultural nations. The later immigrants were also preponderantly farm bred and reared, but they came to this country when the days of easy land acquisition were over. Consequently the majority were obliged to change their occupations and to seek what opportunities our industrial centers could offer. They flocked to the mill towns and to the mining districts. They drifted into railroad and building construction work.

How great the increase in the urban settlement of our immigrants has been is shown by the fact that, in 1890, 61.8 per cent of the foreign-born whites lived in cities, while in 1920 the percentage had grown to 75.5 per cent. Three of every four foreign-born white persons in the United States in 1920 lived in cities having a population of 2,500 or more inhabitants. In 1920 more than 35 per cent of the

population of New York City, and approximately 30 per cent of the population of Chicago, Detroit, Cleveland, and Boston, was foreign-born. In the cities, moreover, newly arrived immigrants tended to segregate, thus increasing the difficulties of assimilation. Such segregation was not unnatural when one considers the immigrant's strangeness to his new surroundings, the difficulties of obtaining suitable housing, the barrier of a new language, and the desire to be with his own kind. But the "little Italies", for example, of our large cities helped to make the American people conscious of the existence of a real immigration problem.

Increase in illiteracy. Still another factor creating the immigration problem was the high percentage of illiteracy among the recently arriving immigrants. According to the census of 1920 there were 4,931,905 persons in the United States, ten years of age or over, who by their own confession could neither read nor write some language, representing 6 per cent of the total population over ten years of age. Of these 4,931,905 illiterates, 1,763,740 were foreign-born. Of our total foreign-born population ten years of age or over, numbering 13,497,886 in 1920, 13.1 per cent were illiterate. For the five-year period ending June 30, 1914, the percentage of illiteracy among immigrants coming from Southeastern Europe was fifteen times as high as for those from Northwestern Europe. The influx of the newer immigrants helped make the United States, in spite of all that our public schools and adult education agencies could do, one of the most illiterate of civilized nations.

Failure of the "melting pot". The final stroke needed to arouse the American people to the realities of our immigration problem was furnished by the World War. It came with the realization that our much praised "melting pot" had failed to effect anything like a perfect fusion of all the elements that had poured into America from across the seas. Great numbers of our immigrants, and particularly the newer strains, had not been assimilated into the life and thinking of the American people. In part this was due to the fact that they were foreign to our distinctive institutions and ideals; in other part it was due to conditions here beyond their control. In any event, lack of fusion was a disconcerting fact that called for remedial action.

THE RISKS IN UNCONTROLLED IMMIGRATION

The demand for public control of immigration was based upon the allegation that unregulated immigration was a menace—economic, social and political.

The economic threat of unrestricted immigration consisted largely in its tendency to reduce wages and consequently to lower the American standard of living. This became most evident with the heavy influx of immigrants after 1900, who crowding into our industries brought about an over-supply of labor in many occupations. The immigrant fresh from Southeastern Europe had a lower standard of living than prevailed here among the native-born, and consequently he was willing to work for somewhat lower wages. This low standard of living of the immigrant was a constant menace to the American level of wages and standard of living. Whenever unemployment was general—and it has been estimated that from one to three millions of wage-earners are constantly out of work—this threat became a grim reality. It is not surprising, therefore, that organized labor came to look upon unrestricted immigration as a menace to the success of collective bargaining.

Unrestricted immigration, however, did not lack for zealous champions who defended it on economic grounds. Many large-scale employers were emphatic in their assertions that America needed a steady supply of cheap labor for her greatest industrial development. They were obviously interested in low labor costs as one means of marketing their goods to the best advantage of themselves as profit-seekers and to the best advantage of consumers interested in low prices. But certain post-war developments and fears caused many large employers to join with organized labor in advocating the restriction of immigration in spite of the fact that this would mean higher labor costs.

Until toward the close of the nineteenth century Americans had looked upon immigration with the utmost complacency. There had usually been work enough for all, and the newcomers, for the most part kindred in blood, customs, and traditions to the earlier settlers here, had readily adapted themselves to the life and thought of the

land of their adoption. America was described as a "melting pot". It was hoped that the commingling of European strains here would ultimately produce as strong a people and as fine a civilization as the world had ever known.

But with the shift in the main sources of our immigrant supply this hope was rudely jolted. Most of our later immigrants did not readily acquire our language, adopt our mode of living, or adjust themselves to our institutions. For reasons peculiar to themselves, and to changed conditions here, they remained aloof. We had great faith in the Americanizing influence of our public schools, but in millions of cases the public schools had no chance to demonstrate their effectiveness with either the adult immigrants or their children. Failure to assimilate the immigrant was a menace to the social unity of the American people.

Imperfect assimilation of hordes of newcomers in a country where citizenship and voting rights could be acquired with relative ease carried a political threat as well. It was a pretty sentiment that the United States should serve as a land of refuge for the politically oppressed everywhere. Many indeed came here to find greater liberty and in turn contributed substantially to the enrichment of our life. But when great masses of citizens and voters remain alien to the language and institutions of a country, when clannishness among them persists, and when they are easily swayed by the influence of some "boss" who has befriended them, then the political danger, in a country where one man's vote counts as much as another's, is appalling.

The American people gradually came to sense these dangers to our economic well-being, our social unity, and our political democracy. The result was a series of control measures that became more rigorous as the problem of the absorption of the immigrant into our life and blood assumed larger proportions.

CONTROL OF IMMIGRATION BY EXCLUSION

The immigration control policy of the United States government has been developed in three steps. No step once taken, however haltingly, has been abandoned. Each step has been in the direction

of more complete control. All three control measures are in force today.

The first limitation upon immigration to this country came in the form of agreements and measures providing for the exclusion of certain aliens whom it was obviously impossible to assimilate, if the United States was to remain a white man's country. The Indian had been on the reception committee when Captain John Smith and his companions had landed at Jamestown, and when the Pilgrim Fathers had disembarked at Plymouth Rock. After 300 years what Indians remained had either been absorbed or had become wards of the state. The Negro had been brought here as a slave—the first ship-load in 1619. Three hundred years later there were more than 10,000,000 Negroes in the American population. They presented enough of a "color" problem for one nation to solve without inviting any more. It is not surprising, therefore, that the first positive limitation upon free immigration to this country took the form of excluding the people of a race and color different from our own. This was the Chinese Exclusion Act of 1882, which though amended is still in force. With Japan our government negotiated a "gentlemen's agreement" in 1907, under which in lieu of American exclusion of Japanese immigrants the government of Japan declined to issue passports to her citizens who would like to emigrate to the United States. Subsequently in 1917 our policy of exclusion was extended to include other Asiatic areas, notably India and the East India islands. The "gentlemen's agreement" with Japan was terminated in 1924 by the Immigration Act of 1924 which contained an exclusion clause denying admission except for temporary purposes to all aliens ineligible to citizenship.

The exclusion of Asiatics by these measures and agreements applies only to those who without them might want to settle in this country. Those who wish to come here for purposes of travel, education, or business are free to come and go as they please. It is fair to say that our policy of exclusion does not mean to imply any invidious distinction between Occidental and Oriental peoples, or between the white race on the one hand and the yellow and brown races on the other. There is no question involved of the superiority or inferiority of cultures. The policy simply recognizes that there is

so great a difference between these peoples as to render their living together impracticable and their assimilation impossible. Asiatic governments would be entirely justified in adopting a similar policy of exclusion if there were ever any migration of Americans to the Orient.

Our policy of exclusion also covers immigrants from any country who for one reason or another are regarded as undesirable acquisitions. We do not admit criminals, paupers, the insane, or the hopelessly diseased. Anarchists and other social revolutionists are also barred.

CONTROL OF IMMIGRATION BY SELECTION

The control of immigration by a process of selection was primarily designed to improve the quality of immigration without necessarily affecting its quantity. On a small scale the exclusion of the undesirables just mentioned represented a process of selection. The first comprehensive attempt, however, to select immigrants was made in the Immigration Act of 1917. This set up not only certain physical, mental, and moral criteria of fitness but also prescribed an educational standard.

The literacy test of the Act of 1917 requires all prospective immigrants, sixteen years of age or over, to demonstrate their ability to read some language. It may be English or any other language. As a means of procuring better educated, and by implication more intelligent, immigrants, the literacy test is a practical test. It is practical because it is simple; because it is incapable of evasion, for one either can or cannot read; and because its results can be foretold before prospective immigrants ever break their home ties in their native lands. Those advocating the literacy test do not claim that it works perfectly in selecting only the most desirable immigrants, but that it is much better than no test at all.

The Congress of the United States four times passed selective immigration laws containing the literacy test. President Cleveland vetoed the bill of 1896, President Taft vetoed a similar measure in 1913, and President Wilson did likewise with the proposed measures of 1914 and 1917. In his first veto message President Wilson said:

In this bill it is proposed to turn away from tests of character and of quality and impose tests which exclude and restrict; for the new tests here embodied are not tests of quality or of character or personal fitness, but tests of opportunity. Those who come seeking opportunity are not to be admitted unless they have already had one of the chief opportunities they seek, the opportunity of education.

On the occasion of the veto of the bill of 1917 Congress, influenced by war-time conditions and prospects, passed the bill over the President's veto, and the literacy qualification has since remained part of our established immigration standards of admission.

CONTROL OF IMMIGRATION BY RESTRICTION

The last and most drastic step in controlling immigration to this country was taken when Congress in 1921 adopted the principle of quantitative restriction, limiting the number of immigrants who might enter our ports in any given year. The literacy test, designed as a qualitative selective device, incidentally tended to restrict numbers, but it set no numerical limit to those who might try to pass the examination. The Immigration Act of 1921, and still more so that of 1924, fixed a quota which the immigrants from any country could not exceed in any given year.

The Act of 1921 restricted the number of immigrants from any country during any year to 3 per cent of the number of foreign-born of that nationality living in the United States in the census year of 1910. But taking the foreign-born population resident in the United States in 1910 as a base, after twenty years of heavy immigration from Southeastern Europe, gave too large "quotas" to those countries whose immigrants were least easily assimilated. Accordingly Congress changed the base of calculations in the Act of 1924 which is now in force. This act temporarily provided that the number of immigrants from any country during any year should not exceed 2 per cent of the number of foreign-born of that nationality residing in the United States according to the census of 1890. The independent countries of North and South America are not included within the scope of the quota law, nor are the countries of Asia from which immigration is barred by other means. The maximum number

of immigrants under the Act of 1924 that could be admitted annually from the quota area was 164,667. For the period since 1924 the number of non-quota immigrants has been almost as large as that of the quota immigrants. This is principally explained by the relatively heavy immigration from Canada, Mexico, and other parts of the Western World that lie outside the quota zone.

The Act of 1924 further specified that beginning July 1, 1927, the total annual quota of immigrants should be reduced to 150,000. To make sure that future immigration to this country should in its composition correspond to the present make-up of the American people, Congress incorporated a special provision in the act that the quota allowed any country after July 1, 1927, shall be weighted in accordance with the past contribution of that country to the American people. This is the national origins basis of immigration restriction. To select the number of foreign-born residing in the United States in any census year such as 1910 or 1890 as a basis for determining quota allotments might do great injustice to the older strains in our population. In spite of the fact that perhaps 50 per cent of our population could trace their ancestors to a particular nation, if the number of persons *born* in that country and residing in the United States in a given census year was relatively small, it is obvious that the quota allowed such nation would be correspondingly small. To base quotas upon the number of foreign-born of any nationality here in a given year, Congress recognized, was to establish a principle of restriction at possible variance with the real contributions of nations to the composition of the American people. Accordingly, after July 1, 1927, immigration from the quota area was to be restricted to 150,000 persons per year, the quota of each country to depend upon its relative contribution to the American population as determined by the census of 1920. If a study of immigration and emigration figures from the earliest records to 1920, together with an analysis of the rates of population increase as revealed by successive decennial censuses, showed that Great Britain and North Ireland, for example, had contributed 43.8 per cent of the American population, their quota apportionment for any year would be 43.8 per cent of 150,000 or 65,721. The national origins basis of quota determination classifies the elements in our population ac-

according to countries of birth or extraction. After a number of postponements in the effective date of this method of quota apportionment, it was finally put into effect on July 1, 1929, and is the present method.

The depression of the thirties, which affected the United States perhaps more deeply than any other major country, naturally witnessed a sharp drop in immigration to this country. Indeed for the period 1931-1934 the number of voluntary emigrants and of those deported exceeded the number of alien immigrants by a wide margin.

The manifest purpose of the restrictive measures that have been adopted is both quantitative and selective. Smaller numbers of immigrants and those of the kind most readily assimilated are the aims of our present policy of restriction. The administration of our immigration law has been both simplified and made more humane by requiring that prospective immigrants obtain visas or passports, issued in accordance with quota allotments, from the American consuls residing in their native countries. This arrangement avoids the many cruel disappointments that arose in the earlier years of our restriction law due to rejection at the American port of entry. How great the desire of Europeans is to migrate to the United States, and how much intensified our immigration problems would be if they were all allowed to come, is strikingly shown by the fact that according to the Department of State's figures there were 1,501,155 applicants for immigration visas in Europe on January 1, 1927. Of this number 1,152,855 were in the countries of Southern and Eastern Europe and 348,300 in Northern and Western Europe.

There is no doubt that the adoption of our present policy of immigration restriction was at least greatly hastened by developments of the World War period. The threatened high tide of disaffected immigrants from war-torn European nations, and the fear that those who came might contribute to the unsettlement of some of our established institutions, caused even the large-scale employers of "cheap" labor, who had been the most ardent advocates of unrestricted immigration, to favor some measure of control. Organized labor had long since favored reduction of immigration in self-defense. A large part of the general public had become imbued with the idea of "America for the Americans". With such a combination

of forces working to the same end, the rearing of effective immigration barriers was greatly accelerated.

CONSEQUENCES OF IMMIGRATION CONTROL

Nearly two decades have now passed since the abandonment of the American open-door policy of immigration. What results are evident in consequence of the inauguration of the new policies of selection and restriction? With the reduction in our labor supply the "mechanization of industry" was greatly stimulated. Wherever possible, labor-saving equipment was introduced to offset possible labor shortage. This proved especially necessary in the industries that long drew heavily upon immigrant labor, notably construction, mining, and some kinds of manufacturing. Immigration restriction also effected some shifting of workers from industry to industry. Such increased mobility of labor was bound gradually to bring about more uniform wages in different industries. Finally, organized labor gained by the new policy of restriction. The labor-union movement in this country has failed to organize the unskilled. One basic reason for this has been the ceaseless crowding of new immigrants into the ranks of labor. The skilled American workman usually felt that he had very little in common with the unskilled immigrant. The latter's inability to understand or to speak English made his induction into the labor movement difficult. But with restriction in immigration this heterogeneity among our workingmen is certain to disappear sufficiently to make more effective organization possible. As far as the general public is concerned the effect of restriction seems wholesome. It is giving the American people a chance to become more unified through the processes of assimilation, which are slow at best. If future increase in numbers can be more largely through the natural increase of the people who are here, rather than through accretion from without, it will greatly simplify our economic, social, and political problems.

PART II
EXCHANGE

CHAPTER XII

THE MONEY SYSTEM OF EXCHANGE

Specialized production, upon which the efficiency of our modern economic system so largely depends, necessitates an equally efficient system of exchange. It is folly to specialize in production unless those who specialize can be assured of at least two things: a fairly steady market for their specialized products and a fairly constant supply of the goods they need both in production and in consumption. Both of these conditions are realized, even though imperfectly, in our modern exchange economy. An intricate system of exchange has been built up, including the use of money, credit, and foreign exchange, of transportation to carry goods into the uttermost parts of the world, of insurance for special risks, and of organized markets, through all of which the commodities and services of one group of specialized producers may be exchanged for those of all the rest.

DEVELOPMENT OF THE MONEY SYSTEM OF EXCHANGE FROM BARTER

The complicated money and credit exchange system of today is the product of a long process of evolution. It had its crude beginnings in a barter economy. Barter, once the prevailing method of exchange and today familiar through limited experience to almost everyone, consists in the direct exchange of one commodity or service for another. When two students exchange textbooks, or one farmer exchanges a cow for another farmer's horse, the transactions are on a barter basis. Barter, however, has distinct limitations as a method of exchange. Its most obvious limitation arises out of the necessity of finding two parties each of whom wants to offer what he has in exchange for something the other party has. Another limitation arises from the difficulty of agreeing upon an acceptable ratio of exchange. The former may result in prolonged and wasteful

search, the latter in unsatisfactory or impossible terms. The farmer who wants to trade a cow for a horse may find another farmer willing to barter something, but if the latter has no horse or wants no cow, a transaction between these two is impossible. Even if two prospective parties to a barter exchange are interested in obtaining each other's goods, a transaction is only possible provided they can trade in even units. If the farmer, who has a horse to trade, insists that the cow offered in exchange is worth only two thirds as much as the horse, no barter is possible, since it is obviously impracticable to divide the horse. Should it be agreed that six cows for four horses constitute a fair exchange, it might well follow that each party to the barter transaction would have a surplus of horses or cows for which he would have no personal use, and for which he would have to find still other traders.

Such decided limitations in a system of exchange by barter led to the use of commodities that could serve as common denominators of value and media of exchange. Some commodities proved more generally acceptable in exchange than others; someone always wanted them, and everyone wanted them at some time. Very naturally such a commodity or commodities became the customary medium of exchange, or money, of any economic community. In its origin, money was any generally accepted commodity which served as a medium of exchange and measured the values of the goods to be exchanged. General acceptability is still the prime requisite of a satisfactory money commodity. A commodity can only serve effectively as money if people generally desire it so strongly that they will unhesitatingly exchange their goods for it. And the strength of their desire is powerfully reinforced by the knowledge that everyone else will do the same.

THE SELECTION AND SURVIVAL OF METALLIC MONEY

There never has been, and there is not today, desirable as it may seem, any universal form of money. Many commodities, varying with the conditions of time and place, have served as money. The first monetary commodities of any community are apt to be things of beauty or of necessity, which qualities make them widely prized and generally acceptable. Beads, jewels, ivory, and shells, furs and

feathers, tea and tobacco, grain and cattle, iron, copper, silver, and gold are common examples of such commodities. The selection of the monetary commodity was a matter neither of accident nor of chance. It was made because at a given time and place a particular commodity best served as a medium of exchange. Gradually, however, the metals, and especially the precious metals, demonstrated their superiority as the monetary commodities of the world. While silver and gold are far from perfect as monetary commodities, they have certain qualities, in addition to their general utility, which make them superior to any other commodities for this use.

One of the chief merits of the precious metals as money is their relative *stability of value*. This quality characterizes gold very much more than silver. Even gold, however, is not perfectly stable in value, ideal as this would be in a commodity that serves as the translator of all other values. But the value of gold has proved so very much more stable than the value of other commodities that it has functioned better as a monetary standard and measure of value than any other single commodity. If money served merely as a medium of exchange, its stability of value would not be a quality of major importance; a money-holder's gains or losses would be restricted to changes in the value of the money he had on hand, which would normally represent only a minor percentage of his wealth. But money functions not only as a present medium of exchange, but also as a standard of value in future payments. In financial obligations to be discharged perhaps years in the future, it is a matter of very great importance whether the money in which they are to be paid has stability of value or not. If the money which serves as a standard of deferred payments changes in value, one party to a long-term obligation, be it the debtor or the creditor, is bound to suffer loss, while the other party gains. Both the loss and the gain are not deserved. Such injustice is largely avoided if the standard of value itself is fairly stable in value.

The relative stability of value of the precious metals in comparison with other commodities (and such stability, it is worth emphasizing, is much more characteristic of gold than it is of silver) is largely attributable to their *durability*. Unlike most other commodities, gold and silver, except for slow abrasion, are not destroyed by use.

The world's supply of gold and silver, consequently, slowly increases, but the annual increase is only a very small percentage of the already existing supply. Small annual production and extreme durability of the stock of precious metals already produced combine to give these generally desired metals what stability of value they have. Durability is an important quality in a standard money commodity, for without it money would not only fluctuate in value but would soon lose all value. Food, tobacco, and iron have served as money in some communities; but in time food spoils, tobacco deteriorates, and iron rusts. Only valuable commodities that do not lose their distinctive qualities with the lapse of time—which means only durable commodities—can serve well as money.

A third quality contributing to the superiority of the precious metals as money is their *portability*. High value for small bulk is essential if a commodity is to serve as pocket money, and also if it is to be cheaply transported in making long-distance payments, either within a country or in foreign lands. Difficulties or cost of handling preclude the monetary use of bulky commodities, like coal, or ultra-precious commodities, like diamonds. When cattle and sheep were used as money in primitive economic societies, they had the undoubted advantage of a measure of long-distance portability, supplied by themselves, but at the same time they had other obvious limitations as monetary commodities.

Divisibility is another ideal money-quality possessed by the precious metals. While every commodity is divisible, only a few such as gold and silver are so perfectly divisible that amounts of equal weight are also equal in value. This perfect divisibility is due to their homogeneity of substance. Even gold and silver are not of uniform quality throughout a given mass as found in their natural state, but they are more homogeneous than any other commodities, and whatever shortcomings they have in this respect are easily corrected in the processes of assaying and refining. Homogeneous in substance and malleable in form, gold and silver are readily divisible into whatever counters of value happen to be desired.

In addition to the distinctive merits just described, gold and silver have the further advantage as monetary commodities of being readily recognized. *Cognizability* implies not only that the commod-

ity having it shall be easily distinguished from all others, but that the quality of the commodity itself shall be easily determinable. If costly and time-consuming examination is necessary in order to distinguish a given commodity from imitations or counterfeits, such a commodity cannot acceptably serve as money. The cognizability of gold is better than that of silver, because the latter is sometimes confused with lead.

GOVERNMENT COINAGE AND PRINTING OF MONEY

Because of their general desirability and the possession of other qualities which an ideal money commodity should have, gold and silver, imperfect as they are, have become the preëminent money commodities of the world. Their selection was a matter of growth and custom rather than of deliberate choice. But a matter of such great importance to the economic life of a people as the use of a standard of value and medium of exchange for all other commodities and services could not long pass without the recognition and sanctions of whatever government existed. From remote times to the present, one of the most precious prerogatives of government has been the power to establish and to regulate the monetary system of the people. In the United States the Constitution grants to Congress the exclusive power "to coin money and to regulate the value thereof". In the exercise of its control over money every modern government selects the commodity which shall serve as the standard of value, with which all other values may be compared; it specifies the amount of this commodity which shall constitute the monetary unit, such as a dollar, in which all other values may be measured; and it establishes a government monopoly of coining and printing money.

Gold had become the standard of value of most of the world until chaotic economic conditions culminating in 1931 compelled Great Britain and ultimately about thirty-five other nations to suspend payments in gold. It is quite possible that this partial abandonment of the gold standard will prove only temporary and will not seriously disturb the "gold-mindedness" of the world. At any rate, nations are scrambling as never before to acquire stocks of gold. Prior to this

temporary abandonment of gold, only China, among the great nations of the world, still maintained the silver standard, and the Chinese government had announced its intention of giving up silver for gold. For other reasons China was forced to abandon silver in 1935.

After the standard money commodity has been adopted, the amount of this commodity which shall serve as the monetary unit of value becomes a matter of legal definition. In the United States and Canada the unit of value is the gold dollar; in Great Britain, the gold sovereign or pound; in France, the gold franc; in Germany, the gold mark; in Japan, the gold yen. All over the world each country has its distinctive monetary unit, although in a few cases the units, whether known by the same or different names, such as the Swiss franc, Albanian franc, and Spanish peseta, have identical values in gold. It would greatly facilitate international financial transactions if the nations of the world had not only a common standard but also a common unit of value. The strong inertia of national customs, however, makes the realization of any such dream only a remote possibility. Varying amounts of gold constitute the units of value of different countries, just as we still have unlike units of weight and measure in different countries of the world. In the United States the weight and fineness of the gold dollar remained unchanged from 1837 to 1934. It consisted of 25.8 grains of standard gold, but one tenth of the weight of a standard gold coin was an alloy of copper in order to give the coin greater durability than it would have if it were made of pure gold. Every gold dollar, therefore, contained 23.22 grains of pure gold and 2.58 grains of copper. The weight of the gold dollar was changed by presidential proclamation on January 31, 1934, under powers previously given the President by Congress. The new dollar contains 15.23 grains ($15\frac{5}{21}$) of standard gold or 13.71 grains of pure gold. Its weight is 59.06 per cent of the weight of the old gold dollar. The price of gold at the mints was fixed at \$35 per ounce in contrast to the price of \$20.67 an ounce which had previously prevailed. A dollar is now $\frac{1}{35}$ of an ounce of pure gold instead of a trifle under $\frac{1}{20}$ of an ounce of gold.

The coinage of money. For reasons already mentioned the coinage

of money is the special privilege of the government. Coinage is the manufacture of metallic money units of certified weight and fineness. If coinage were a private privilege instead of a public function, there would be a confusing variety of private coins. The temptation to debase the coinage (to put less pure metal into a coin than is specified on its face) would prove irresistible to some—in the past even some sovereigns have not been above this practice. The coinage of money is properly a government monopoly, which at least ensures uniformity, and should guarantee integrity, of the monetary system.

Government coinage of any metal may be either limited or unlimited. Under a system of limited coinage the government buys whatever amount of any metal it chooses to coin. Under a system of unlimited or free coinage anyone having a specified minimum amount of a standard metal may take it to a government mint and ask that it be converted into coin. Until 1933 there was unlimited coinage of gold in the United States. The holder of gold bullion had the constant option of selling it in the open market for any desired industrial use, or of exchanging it for gold coin at the mint.

Sometimes the government performs the service of converting standard gold bullion into coin without any charge to the individual presenting it; in such a case coinage is said to be gratuitous. Gold coinage was gratuitous in the United States after 1875. If the gold brought to the United States mint was not standard gold, but required assaying and refining and the addition of the prescribed copper alloy to make it standard, the government charged for its industrial and commercial services in these respects. Such charges, however, were not for coinage, which was still gratuitous.

Some governments make a charge for converting standard metal into coin; such charges may take the form either of brassage or of seigniorage. Brassage is a charge just sufficient to cover the actual cost of coinage. It costs the government a good deal of money to maintain and operate its mints. Brassage represents an attempt to make each output of coin carry its share of this expense.

Seigniorage, on the contrary, is a charge sufficient to yield the government a profit on its coinage operations. It may easily be collected by withholding for the benefit of the government part of the bullion brought to the mint for coinage. The face value of the

coins made from the bullion brought is greater than the value of the bullion by the amount of the seigniorage. The theory underlying seigniorage is that it is possible for the government to maintain a difference between the face value of the standard coin and the value of the bullion which it contains. As long as this difference is slight and the coins circulate only in domestic trade, it is not impossible. In foreign trade, however, face value signifies nothing, no matter whose face adorns the coin, unless it precisely equals the bullion value of the coin. Even in domestic trade, where seigniorage is charged for the coinage of standard money, there is an almost irresistible tendency for prices to rise to offset the lightening or cheapening of the standard coins. In the practice of some monarchs like Henry VIII of England, and Philip IV and Louis XIV of France, seigniorage was shamefully abused. Instead of restricting seigniorage to a slight charge for the coinage of new metal, these monarchs sought to replenish the empty royal treasury by making a profit on the recoinage of the metallic money already in circulation. Old coins were melted down and new coins bearing the same face values issued in their stead. The new coins, however, were either lighter in weight or, if their weight was the same as that of the old coins as a concession to custom, they contained a larger amount of alloy. Regardless of their face value and of the likeness of the ruler or other seignior stamped upon them, they were cheaper money because they contained a smaller amount of the precious standard metal. This reprehensible abuse of seigniorage meant the debasing of the currency, the rise of prices because they were expressed in cheaper money units, and the general unsettlement of economic life. The government monopoly of the coinage of standard metal is no longer considered as a possible source of profit but rather as a necessary public function for the promotion of uniformity in our price economy and of integrity in our monetary system. Either gratuitous coinage or brassage is the prevalent modern practice of governments with reference to the coinage of standard metal.

The engraving and printing of money. Because every currency system contains paper as a supplement to coin, the engraving and printing of paper money is a government monopoly no less than the coinage of money. Again the purpose of a government monopoly

is to secure uniformity and integrity of the currency. Every known safeguard is set up in the selection of the paper, the designing of forms, the engraving and printing of the currency, to prevent successful counterfeiting. In the United States some kinds of paper money have been or are the direct obligations of privately owned banks. All forms of paper money, however, in the interest of safety, are prepared by the Bureau of Engraving and Printing of the United States treasury.

STANDARD MONEY

Forms of standard money. A great variety of metallic units and of pieces of paper comprises the monetary systems of the world. But in every country there is one form of money which sets the standard for all the rest. The money system of the United States, for example, at present includes ten different kinds of money. Gold is held in the United States treasury; silver, nickel, and copper coins are in use, in addition to six forms of paper money: gold certificates, silver certificates, United States notes, United States treasury notes of 1890 (nearly all retired), federal reserve bank-notes, and federal reserve notes. Of these ten varieties, however, only gold is standard money; the rest are forms of fiduciary money. Usually a single commodity, like gold, which has important non-monetary as well as monetary uses, serves as the standard money. At times an attempt has been made to have two commodities, gold and silver, jointly serve as standard money. Occasionally, by force of circumstances, paper money has for a time had to serve as the standard because specie was not available. Normally, however, standard money is a quantity of metal (usually gold) of specified weight and fineness, the bullion value of which exactly equals its value as money. Should the government stamp be effaced from standard money coins, they would have the same value as bullion to be used in the industrial arts that they had as coins. On the other hand, the impression of a government stamp on 23.22 or 13.71 grains of fine gold, or any multiple thereof, adds nothing to their value. Standard money furnishes the unit in which the value of all forms of fiduciary money is expressed, and with which fiduciary money is

most easily kept at par as long as the two are freely interchangeable.

Technically, a country is on the gold standard when its unit of value, such as the dollar, consists of a fixed quantity of gold whose value is determined in an open gold market. In practice this means that gold can be sold without restrictions in either the industrial markets or at the mints, that it is free to move into or out of a country, and that the paper money of a gold-standard country is convertible into gold. In the past, gold as the standard money of the world has enjoyed the privilege of free or unlimited coinage and has been full legal tender in the discharge of all money obligations. The essence of the gold standard consists in furnishing a uniform and effective standard of value measured by a designated quantity of gold.

The most familiar form of the gold standard is the *gold coin or specie standard* which was maintained in the United States prior to the spring of 1933. Gold was freely coined; there were no restrictions on its movements to the mints or into the industrial arts; it could be freely shipped abroad without any permit from the United States Treasury; and all forms of fiduciary money were kept at par with gold because in practice they were exchangeable for gold.

Another form of the gold standard is the *gold bullion standard* under which there are no circulating gold coins at all. Gold is converted into gold bars of designated amount—400 ounces having been the British practice from 1925 to 1931. Except for having gold coins circulate as a medium of exchange, which had been declining in importance in recent years, the gold bullion standard performs all the functions of the gold specie standard. Moreover it economizes the use of gold. A sub-commission of the World Economic Conference meeting in London in 1933 declared: "Under modern conditions monetary gold is required not for internal circulation, but as a reserve against central bank liabilities and primarily to meet external demands for payments caused by some disequilibrium on foreign account. It is consequently undesirable to put gold coins or gold certificates into internal circulation." Since January 31, 1934, the United States has been on a limited international gold bullion standard. Under the provisions of the Gold Reserve Act of

January 30, 1934, and subsequent regulations of the treasury, gold bullion may be exported and also imported and sold to the treasury. Gold moves fairly freely in the settlement of international accounts. Our currency, however, is not convertible into gold bullion for domestic use. If it were we should be on a full gold bullion standard. Many monetary authorities regard the establishment of a full gold bullion standard as highly desirable in the further development of our monetary system.

Some nations have found it difficult to establish the full gold standard in spite of their preference for it. The transition from a silver to a gold standard is sometimes an expensive undertaking, because the necessary reserves of gold must first be obtained. Certain European countries found it impossible to return to the gold standard at once after the financial upheaval that followed the World War. To meet such situations a modification of the gold standard, known as the *gold-exchange standard*, has been developed. If a country operates on a gold-exchange standard, its currency is redeemable in bills of exchange or drafts themselves payable in gold in some foreign country.¹ In order to offer such foreign bills of exchange in the redemption of its own currency, a government must maintain gold reserves in the country on which the bills of exchange are drawn. The advantage of such a system is that the gold reserves do not need to be as large as if a full gold standard were maintained. Neither is it necessary for the government to displace the familiar silver currency, or to put gold coins into actual circulation. India and the Philippines are among the countries recently using the gold-exchange standard, their gold credits having been respectively in England and in the United States.

The value of standard money. The value of the standard commodity money, which is almost invariably gold, like that of any other commodity, is determined by the interaction of the forces of demand and supply in the market. Any good has value if the supply of it is limited in relation to the demand for it. What gives gold value is the effective demand for it for industrial as well as for monetary uses, combined with the scarcity of the yellow metal. The use of gold for ornaments, rings, watches, pens, dental fillings, and

¹ For a description of bills of exchange or drafts, cf. pp. 297-303.

the like is in constant competition with its use for money. Together the non-monetary and monetary demand for gold readily absorbs all the gold that is produced. The annual production of gold, on the other hand, is small. In 1934, for example, the world output of gold, the highest in history, approximated 26,910,000 fine, or pure, ounces. It has been estimated that after thousands of years of gold-digging, Europe at the time Columbus discovered America possessed only \$100,000,000 worth of gold (old dollars) in the form of coin and commodities. The total world production of gold from 1493 to the close of 1933, on the other hand, amounted to about 1,134,390,000 pure ounces with a coining value of somewhat more than 23,000,000,000 old dollars or nearly 40,000,000,000 new dollars.² Of this amount a little over 50 per cent is today a part of the world's monetary gold supply; the rest has gone into the industrial arts or been lost. The entire monetary gold supply of the world could easily be stored in many a bank lobby—a room 55 feet long, 30 feet wide, and 20 feet high would accommodate it all.

The value of standard gold bullion and the value of gold coin are the same. Wherever there is free coinage of gold, gold bullion may be taken to the mint and exchanged for gold coin. Gold coin, on the contrary, can be melted down, taken to the industrial market, and sold as gold bullion. There is neither gain nor loss on either transaction. Why must the value of a given amount of gold coin always equal the value of the same amount of gold bullion and vice versa? The answer lies in their interchangeability. If for some hypothetical reason the value of gold coin should become greater than the value of gold bullion, bullion would seek the mints to take advantage of its greater value there. The effects of this movement would be to decrease the market supply of gold bullion and to increase the mint supply of gold coin, which would result in a higher value for gold bullion and a lower value for gold coin. It would only be a question of time when such a movement would restore the parity of gold values in the bullion market and at the mint. For the same reason, if the value of gold bullion should temporarily become greater than the value of the gold coin that can be made

² Annual Report of the Director of the Mint for the Fiscal Year Ending June 30, 1934, p. 108.

from it, the movement of gold coins would be into the bullion markets, where they could be melted without loss. The effects of this movement would be to decrease the supply of gold coin and to increase the market supply of gold bullion, which would soon result in a higher value for gold coin and a lower value for gold bullion. Thus again, the assumed lack of parity between the value of gold as bullion and its value as coin would tend at once to correct itself. On account of the unrestricted alternative uses of gold in the industrial arts and for monetary purposes, the value of standard gold money equals the value of the bullion which it contains, and the value of a quantity of bullion equals the value of the coin into which it can be made.

The functions of standard money. The primary and principal functions of money are to serve as a *medium of exchange* and *standard of value*. These two basic functions of money are intimately related. As a universal medium of exchange, money overcomes the difficulties of barter. It enables the owner of a good, which he desires to exchange, to sell it for money, and then at his own pleasure to buy whatever goods he can with the money so acquired. Money is precisely a *medium of exchange*, a means for the accomplishment of a desired end.

Money serves so acceptably as a medium of exchange because at the same time it functions as a standard of value. In every exchange transaction the question arises, how much of a good is wanted or offered in exchange for a given good? While the price of any commodity, like a watch, may be expressed in fractions or units of all other commodities likely to be exchanged for it, it is incalculably more convenient to express its price in terms of a generally accepted medium of exchange. Standard money is the measuring rod of price, the common denominator in which the prices of all other goods are expressed. The gold standard of measuring the values of other goods is not perfect, because its value, like the value of everything else, is subject to change over periods of time. But it is by far the most stable standard the world has yet tried. While all forms of money serve as a medium of exchange, only standard money functions as the standard of value. When values are expressed in fiduciary money, it is in the confidence that fiduciary money is exchangeable

for standard money or in some other way kept at par with it. Whenever this has proved not to be the case, standard money prices and prices in fiduciary money, instead of being identical, have tended to diverge sharply, the latter being the higher prices.

Standard money serves not only as a standard of value in present transactions, but it functions also as a *standard of deferred payments*. Its use in this respect has been of increasing importance throughout the development of our credit system of exchange. Most business transactions today are concluded on a credit rather than a cash payment basis, which means that they call for future payments. When goods are sold on credit, or money is lent at interest to be repaid on some future date, the value of the standard in which such future deferred payments are to be made is a matter of very great importance to both debtor and creditor. An ideal standard of deferred payments would itself be perfectly stable in value. The debtor must always pay the number of dollars, or other units of value, agreed upon in the original credit transaction. These dollars, however, may have a very different purchasing power at the time of payment from what they had at the time the obligation was incurred. Naturally, the debtor does not wish to pay back more purchasing power than agreed upon, nor the creditor to receive less. Actually, debtors often pay more, and at other times, creditors often receive less. There is no perfect standard of deferred payments in use anywhere.

Standard money may also function as a *store of value*. It was once very much more common than it is today for people to hoard money, particularly the precious metals, in places they hoped would be secure against the depredations of private thieves and the misappropriations of avaricious public officials. But since the development of our banking system and the multiplication of investment opportunities, there has been comparatively little hoarding. What hoarding took place in the United States during the depression of the thirties was not so much hoarding of gold (though some of this occurred) as of currency, largely induced by fear of bank failures. Hoarded money is idle wealth, which yields no income; it has only whatever value the hoard possesses. The typical stores of value to-

day are found not in hoarded money, but in income-producing investments. And yet to some degree money still functions as a store of value. Money on hand or deposited on demand in a bank is at least temporarily a store of value for its owner.

In an exchange system in which credit and fiduciary money are as widely used as they are today, not the least important of the functions of gold is to serve as a *reserve supporting bank-deposits and note circulation*.³ Gold reserves provide the thermostatic control over the expansion of credit and currency. It is good banking practice to require a minimum cash reserve in gold or other lawful money against deposits in order to help maintain the liquidity of banks. Federal reserve banks in the United States, for example, must carry a reserve of 35 per cent in gold or other lawful money against the deposits made with them by their member banks. They must also maintain a 40 per cent gold reserve against the circulating federal reserve notes issued through them. Standard commodity money has an important function to discharge in helping to give strength and stability to a country's credit and fiduciary money system. It furnishes a necessary anchor for paper currency and credit.

From the foregoing discussion of the functions of money it is evident that money is the language of the modern business world. Commodities and services of all kinds are bought and sold for money. The economic value of all goods is measured and expressed in terms of money. All financial records are kept in units of money. Standard money comes closer to being a universally intelligible language than any other "tongue" of man.

FIDUCIARY MONEY

Forms of fiduciary money. Fiduciary money, as its name implies, is money which people accept on faith in the confident expectation that others will do the same. Of the ten forms of money in use in the United States all but gold must today be classified as fiduciary money. A simple, even if not accurate, classification of the fiduciary money of the United States may be represented as follows:

³ This subject is discussed in the next chapter (pp. 329-330).

FIDUCIARY MONEY OF THE UNITED STATES

- I. Coined money
 - 1. Silver dollars and subsidiary silver
 - 2. Nickel five-cent pieces
 - 3. Bronze cents (95 per cent copper)
- II. Paper money
 - 1. Certificates
 - a. Gold certificates
 - b. Silver certificates
 - 2. Notes
 - a. Government notes
 - (1) United States notes ("greenbacks")
 - (2) United States treasury notes of 1890
 - b. Bank-notes
 - (1) Federal reserve bank-notes
 - (2) Federal reserve notes (Issued by Board of Governors through federal reserve banks)

Coins. Present coins are fiduciary money, because the bullion value of the metal which they contain is less than the money value stamped upon them. Silver dollars are sometimes still described as "standard silver dollars", but the expression is anachronistic, suggesting the time when not only gold but also silver was standard money. When Congress in 1837 established a ratio of 16:1 (actually 15.988:1) between silver and gold, it made 371.25 grains of pure silver one dollar because 23.22 grains of pure gold were defined as the gold dollar. Since there are 480 grains in a troy ounce, one standard silver dollar contains $0.7734 +$ of an ounce of pure silver ($371.25 \div 480 = 0.7734$). Because $0.7734 +$ of an ounce of silver equals \$1, it follows that an ounce of silver equals \$1.2929 ($1.00 \div 0.7734 = \1.2929). Late in 1932, however, the price of silver in the markets of the world sank to the lowest figure recorded in modern times—\$0.24 $\frac{1}{4}$ per fine ounce. This wide disparity between the commodity and nominal monetary values of silver would flood the mints with silver were it not for the fact that the government strictly limits the amount of silver that it buys and coins and, when it buys, it buys at the market price or at such higher price as it chooses to offer. At the low price of 1932, therefore, the amount of pure silver contained in a silver dollar had a market value of only 18.75 cents. It is apparent that our silver dollar is very much of a fiduciary coin.

Subsidiary silver coins—half-dollars, quarter-dollars, and dimes—contain even less silver proportionately than a silver dollar. The amount of pure silver in ten silver dimes, for instance, is less than the amount of pure silver in a silver dollar. This lightening of subsidiary silver goes back to a time in our history when the commodity value of a given quantity of silver and the amount of money that could be coined from it were nearly, but not exactly, the same. In 1834 Congress declared that at the mints of the United States sixteen parts of silver should be considered equivalent in value to one part of gold. At the time, this was also approximately the ratio of the market values of silver and gold. Soon thereafter, however, the market value of silver rose, so that it no longer required as many as sixteen parts of silver to equal in value one part of gold. Silver was undervalued at the mint. Consequently, little or no silver was brought to the mint, and silver coins themselves were melted and used in the industrial arts. The result was that the country was embarrassed by a lack of small change. To guard against the recurrence of any such inconvenience in the future, Congress finally in 1853 passed a law which provided for abandoning the unlimited coinage of subsidiary silver and which reduced the amount of pure silver in these coins by 6.9 per cent so that they have never since disappeared from circulation. Nickel and bronze coins, which together with silver coins are sometimes called token coins, are also light-weight fiduciary coins to ensure their constant use as money.

Paper money certificates. An important element in the fiduciary money of the United States consists of paper money certificates, both gold and silver. A gold certificate states that there have been deposited in the treasury of the United States the number of dollars in gold coin or bullion printed on the face of the certificate. Prior to April 20, 1933, the gold was payable to the bearer on demand; since that date private individuals possessing the certificates have been compelled to present them to the treasury for redemption in other lawful money. Only federal reserve banks are allowed to hold them against gold deposited in the treasury. The gold certificates that are still in circulation, which means that they are outside the treasury and federal reserve banks, have either been lost or are still being hoarded. A silver certificate is identical in form, but

the deposit and promised payments are in silver. Gold and silver certificates are a device for enabling gold and silver to serve as money by proxy. They have frequently been described as warehouse receipts for bullion or coin deposited in the treasury. Gold and silver certificates have the undoubted merits of convenience and economy. They are convenient, because it is much easier and safer to carry them than equivalent amounts of coin, especially when large amounts are involved. They are economical, because when gold and silver lie in the treasury there is no abrasion such as inevitably occurs in circulation.

Government notes. Circulating notes, whether issued by the government or by the banks, are forms of credit money. They are freely accepted as long as people have faith in the ability and integrity of the issuing institutions to redeem them in something of value equivalent to the amounts promised in the notes. Government notes are non-interest-bearing promissory notes, in which the government promises to pay the bearers on demand the sums named in the notes. To ensure its ability to do so, it is usual for the government to maintain a partial gold or other lawful money reserve. United States notes, popularly called "greenbacks" when first issued during the Civil War period, illustrate government notes circulating as fiduciary money. United States notes are promises to pay by the United States government. In all, about \$450,000,000 worth of such notes were issued during the Civil War period, some of them being subsequently retired. By act of Congress passed in 1878, however, the notes then outstanding, amounting to \$346,681,016, were made a permanent part of the fiduciary money of the United States. This act requires that the notes be reissued after they have been presented for redemption in order not to reduce the quantity of money in circulation. The so-called treasury notes of 1890 furnish another illustration of government notes circulating as money. They were originally issued under authority of the Sherman Silver Purchase Act of 1890 to pay for silver bought by the government. Treasury notes amounting to over \$155,000,000 were issued before the act authorizing them was repealed in 1893. These notes are all canceled and retired when presented for redemption, but an amount approximating \$1,184,000 is still in circulation. Some of this is doubtless

being hoarded by collectors of rare money, and some has been lost or otherwise destroyed.

Bank-notes. Not only the government but also certain banks of issue contribute their notes to the fiduciary money system of the country. In the United States national banks issued their own circulating notes from 1863 to 1935, securing them by the deposit of an equal amount of United States government bonds. Today the only banks of issue are the federal reserve banks, which are empowered to issue or are the medium of issue of both the federal reserve bank-notes and the federal reserve notes. Federal reserve bank-notes are the direct promises to pay of the federal reserve banks and so far have functioned largely as emergency currency. Much more important than these are the federal reserve notes. They are both the largest and the most useful form of fiduciary money in circulation in the United States. Nominally, they are issued by the United States government; actually, however, they are issued through the agency of the federal reserve banks. The initiative for issuing them is not taken by the government, as in the case of all government notes, but rather by the federal reserve banks themselves. Practically, the federal reserve notes, as far as issuance, security, and retirement are concerned, are bank, not government, notes.

The accompanying table ⁴ of the kinds of money in circulation in

KINDS OF MONEY IN CIRCULATION
December 31, 1934

(Money outside Treasury and Federal Reserve Banks)

Gold certificates	\$ 130,392,679
Standard silver dollars	32,046,705
Silver certificates	591,570,480
Treasury notes of 1890.....	1,184,924
Subsidiary silver	294,380,377
Minor coin	125,101,024
United States notes	264,754,551
Federal reserve notes	3,175,616,655
Federal reserve bank-notes	100,761,159
National bank-notes	819,863,003
Total	<u>\$5,535,671,557</u>

⁴ U.S. Treasury Department, *Circulation Statement of United States Money—December 31, 1934*. The national bank-notes were retired in 1935, federal reserve notes being substituted for them.

the United States on December 31, 1934, shows the relative importance of each of the preceding forms.

The value of fiduciary money. The value of fiduciary money, unlike the value of standard money, is not determined by the value of the substance from which it is made. The value stamped or printed upon its face is higher than its commodity value, which in the case of paper money is negligible. With so many forms of fiduciary money in circulation in the United States, the question naturally arises: how is it possible to maintain uniform prices when so many different kinds of money are in use? The answer was simple as long as standard gold money either circulated or was available for redemption: all forms of fiduciary money were directly or indirectly exchangeable for gold and so were freely interchangeable. Gold has universal acceptability. But in the United States today, as well as in most other countries, fiduciary currency is not convertible into gold. What then supports its value? For one thing, the amount of such currency is still limited. For another, the greater part of it is still anchored to gold, since the customary gold reserves are maintained against it in the United States treasury. What is more, people have confidence that the currency will not be allowed to depreciate unduly and that ultimately it will again be convertible into gold, if necessary to maintain its parity with the standard unit of value. The Gold Standard Act of 1900 directs the Secretary of the Treasury to maintain the parity of all forms of money with gold. The Gold Reserve Act of January 30, 1934, further provides "That gold certificates owned by the federal reserve banks shall be redeemed at such times and in such amounts as, in the judgment of the Secretary of the Treasury, are necessary to maintain the equal purchasing power of every kind of currency of the United States".

Specific security supporting each kind of fiduciary money. Whenever a government is unable to redeem its fiduciary money in gold, or chooses not to do so, the specific security supporting each form of fiduciary money may become of very great importance. It operates as a limiting factor in the issuance of such money. Silver dollars are unsupported by any specific reserve. Other subsidiary coins are legally exchangeable for "lawful money" (which at present means

gold certificates, silver dollars, silver certificates, United States notes, and treasury notes of 1890), but there is also no specific reserve against these outstanding coins. Gold and silver certificates are supported dollar for dollar by equivalent amounts of gold and silver. United States notes, being the direct obligations of the United States government, are supported by the general credit of the government. In addition, however, by the Gold Standard Act of 1900 they are secured by a specific gold reserve amounting to \$150,000,000. Since there is a constant amount of them outstanding (\$346,681,016), for they must again be injected into the circulation after they have been redeemed, the reserve backing them is partial, not complete. The small amount of treasury notes of 1890 still outstanding is also supported by the gold fund securing United States notes and in addition is backed by an exactly equal number of silver dollars "earmarked" to replace them directly or in the form of silver certificates whenever they are presented for payment. When national bank-notes were in circulation, they were secured, dollar for dollar, by the deposit with the treasury of eligible United States bonds. The possible failure of a national bank accordingly was not a source of worry to the holders of its notes as long as the credit of the United States government was good. Federal reserve bank-notes, when first issued, were like the national bank-notes secured dollar for dollar by eligible United States bonds. Under the emergency banking legislation of 1933, and until the President declares such emergency ended, they may also be supported by sound promissory notes, commercial bills of exchange, and bankers' acceptances. The federal reserve bank-notes issued against such security must not exceed 90 per cent of its fair value. Finally, the federal reserve notes are supported by collateral security amounting to 100 per cent of the value of the notes issued. A minimum of 40 per cent of this security must be in gold certificates; the remaining 60 per cent may be in gold certificates or commercial paper.⁵

⁵ Commercial paper includes the notes, drafts or bills of exchange, and acceptances which arise out of actual commercial transactions. They are described more fully in the following chapter (p. 297). As a result of the scarcity of eligible commercial paper during the business depression of the thirties, federal reserve

Legal-tender qualities of fiduciary money. What legal attributes any form of money shall have is a matter of legal definition. Legal-tender money is money which the law compels a creditor to receive at par in the settlement of a debt, unless the contract specifically names the non-monetary medium in which it shall be paid. No legal-tender law abridges the contractual rights of debtor and creditor to specify payments in kind. When a particular form of money, however, has been made legal tender by legislative act, it thereafter is lawful money for the discharge of obligations. A creditor's refusal to accept it discharges the debtor from the payment of interest accruing subsequent to the tender of the money which the law authorizes him to offer. It does not discharge him from the obligation of the debt itself. The purpose in exactly defining what money shall be legal tender, and whether for full or limited amounts, is to make impossible any misunderstanding between debtor and creditor concerning the means of payment. Most financial contracts merely state that payment shall be made in the monetary unit of the country concerned. Usually it has been a matter of indifference what kind of money was used, because all were convertible into gold. At times, however, when it is necessary to suspend payments in gold, as it was in the United States during the Civil War period and in Europe as well as the United States during and after the period of the World War, what constitutes legal tender may be a matter of great concern.

The legal-tender quality and the value of money are sometimes confused. For a government to declare a form of money legal tender is not ipso facto to give it value. Russian paper rubles and German paper marks became virtually worthless in spite of the fact that they were full legal tender. To declare money legal tender will help

notes were sometimes backed 75 per cent or more by gold. This greatly reduced the supply of "free gold" in this country which could be used, for example, to meet gold withdrawals from the United States by foreign countries. To remedy this situation Congress, in the winter of 1932, adopted the Glass-Steagall Amendment to the Federal Reserve Act, which permitted federal reserve banks, subject to the approval of the Federal Reserve Board, to deposit direct obligations of the United States government in lieu of the maximum 60 per cent commercial paper backing for federal reserve notes. Since the lack of commercial paper was considered temporary, this provision of the Glass-Steagall Act was made to expire March 3, 1933, but was subsequently extended until 1937.

to promote its circulation, but its value depends upon all the forces affecting the demand for it and the supply of it.

In the United States prior to May 12, 1933, some of our money was full legal tender for the discharge of debts between private parties, namely, gold, gold certificates, United States notes, treasury notes of 1890, and silver dollars. Subsidiary silver coins were legal tender for amounts not exceeding ten dollars, and minor coins of nickel and bronze for amounts not in excess of twenty-five cents. Silver certificates, national bank-notes, federal reserve bank-notes, and federal reserve notes were not legal tender at all. All this has now been changed and all our metallic and paper money is *full legal tender* for the discharge of both private and public obligations.⁶

Uses and abuses of fiduciary money. Fiduciary money is a most useful part of the monetary system of any country provided it is generally acceptable at par with standard money. Its general acceptability depends upon the confidence of people in the integrity of the government and the banks which issue it, and upon the ability of these institutions to keep it at par with gold or other standard money. The advantages in using fiduciary money include its convenience, its economy in conserving gold, and its flexibility in providing whatever supply of money is needed.

The issue of fiduciary money, however, is easily abused. The perennial danger in its use, particularly in the use of paper money, whether inconvertible or based on slender reserves, is the danger of inflation—the issue of more of it than is normally needed to do business. Confronted by extraordinary fiscal needs, virtually every government at some time has inflated its fiduciary money circulation as a supplement to and frequently as a substitute for taxation. It has injected its own legal-tender notes or the notes of a central bank into the circulation, with the inevitable results of cheapening the fiduciary money and raising prices. With every rise in prices the government, no less than private individuals, found it harder to pay for what it wanted. The only alternative to taxes was more

⁶ Cf. Thomas Amendment to the Agricultural Adjustment Act (Public No. 10, 73d Congress, approved May 12, 1933) and Joint Resolution to Assure Uniform Value to the Coins and Currencies of the United States (Public Resolution No. 10, 73d Congress, approved June 5, 1933).

inflation. Every rise in prices seemed to necessitate more issues of money, and the new issues of money raised prices still further. Ultimately, inflation finished its treacherous course when the fiduciary money issued became practically, if not absolutely, worthless.

Financial history abounds in illustrations of the dangers of using inconvertible paper money or fiduciary money based upon very inadequate reserves. Such was the experience of the American Colonies, both individually and united under the Continental Congress. To wage wars against the Indians, and later to fight the Revolutionary War, the Colonies issued their circulating notes. Since taxes were not levied to redeem these notes, their value fell as more of them were issued, and as confidence waned in the ability of the colonial governments to redeem them. The Continental Congress, indeed, had no direct power to levy taxes, but had to depend upon the Colonies, whose creation it was, for such funds. The paper money of the Continental Congress, issued to defray the expenses of war, at last became practically worthless, though after the establishment of the federal government some was redeemed at the rate of one cent per dollar. From that day to this it has been said of a thing having little or no value "It isn't worth a continental." The expression may soon be completely obsolete as a result of the even greater degradation of the Russian ruble and the German mark. The experience of the Colonies was repeated during the Civil War by the Confederate States of America, whose redundant paper-money obligations were never redeemed. The first large-scale exercise of the power of the United States government to issue paper money also brought disaster in its wake. The Civil War furnished the occasion. Taxes proved inadequate to meet the expenses of the government. The government borrowed what it could. So great were its needs for money, however, that beginning in 1862 Congress authorized the issue of legal-tender United States notes (greenbacks) which the government put into circulation. The total issue of greenbacks amounted to about \$450,000,000. Whatever the public expectation with reference to the ultimate redemption of these notes may have been, the fact is that from 1862 to 1879 the government suspended specie payments. During this period the greenbacks were irredeemable. As was to be expected, their value sank. Indeed, their purchasing power

fluctuated with the fortunes of the Union arms, which affected the chances of their ultimate redemption in full. During the Civil War two sets of prices prevailed: greenback prices and prices in gold. Since greenbacks were the cheaper money for the settlement of obligations, they drove the dearer money, gold, out of circulation.⁷ It was not until shortly before January 1, 1879, the date of the resumption of specie payments, that the greenback dollar again rose to parity with gold. At one time in 1864 its value was only slightly more than one third the value of a gold dollar. Since the greenbacks led to severe price inflation, but were ultimately all redeemed at par, the cost of the Civil War to the government was enormously increased as a result of their use.

Most tragic of all the abuses of fiduciary money was the practice of European countries during and after the World War. The war was the cause of the tragedy. When a nation is at war it needs unlimited control over men and materials. Men may be drafted; materials must usually be bought. To buy them requires immediate purchasing power. Taxes convey purchasing power to the government, but too slowly to make it practical to finance a war out of taxes alone. The usual recourse is to borrow from the banks and the general public in the expectation of paying out of taxes later. But for most European governments in the late war neither taxes nor ordinary loans sufficed to pay current war bills. Consequently, they felt obliged to resort to note issues: directly, through the issue of legal-tender government notes; indirectly, through the issue of notes by central banks which the governments controlled. Whatever the method of note issue adopted, the results were the same: an accelerating increase in notes issued, which in some cases developed into grotesque inflation; a rapid decline in the purchasing power of each unit of note issue or, obversely, a rapid advance of prices to hitherto undreamed-of levels. Specie payments were suspended early in the war by nearly every European country.

A few illustrations will show some of the absurdities of the great inflation of fiduciary money in the world's history. Austria, Hun-

⁷ This principle that "the cheaper money drives the dearer out of circulation" is known as Gresham's law. It is named for Sir Thomas Gresham, who explained the principle to Queen Elizabeth when she was mystified by the disappearance of good full-weight coins and the persistent retention in circulation of debased coins.

gary, Poland, Russia, and Germany were the greatest offenders against sound monetary policy, and in the long run the greatest sufferers. Russia and Germany were great powers, but their financial systems completely collapsed. At the outbreak of the war Russia's paper currency consisted of about 1,775,000,000 rubles,⁸ mostly in the form of government notes. At the peak of the inflation of her currency in February, 1924, Russia had issued government notes amounting to 866 quadrillion rubles (866,000,000,000,000). Her price level at the close of 1923 was 3,781,000,000 times as high as it had been in 1913. Finally, early in 1924 the Soviet government ceased issuing any more paper notes and gathered up the worthless ruble rubbish by offering one gold ruble for 50 billion Soviet paper rubles.⁹ The German currency in 1913 included just under 3 billion paper marks.¹⁰ When Germany's orgy of inflation came to an inglorious end in 1924, it was found that she had issued more than 1½ sextillion paper marks. (In September, 1924 the amount stood at 1,520,510,653,712,000,000,000 marks in the form of notes of the Reichsbank.)¹¹ Germany's wholesale price level at the close of 1923 was about 1,261,560,000,000 times as high as it had been in 1913.¹² After that during the remaining months of inflation it became even more meaningless, and had further to be expressed in magnitudes only useful in measuring celestial distances. The resulting financial chaos could not long be endured. Germany, too, had to make a fresh start. She withdrew the paper marks from circulation by "redeeming" them at the ratio of 1 trillion paper marks for 1 gold mark. The fates of Russia and Germany also befell Austria, Hungary, and Poland, the first two of which were financially rehabilitated through the aid of the League of Nations. Great Britain, France, Italy, and other European countries escaped similar disasters because they were able to stop the inflationary process be-

⁸ A pre-war ruble was equal to 51.4 cents.

⁹ For above figures on Russian inflation cf. League of Nations, *Monthly Bulletin of Statistics*, V, No. 12 (Dec., 1924), p. 27; *Memorandum on Currency and Central Banks, 1913-1924* (Geneva, 1925), II, 140, I, 199.

¹⁰ Both the pre-war and post-war German mark equaled 23.8 cents on the basis of the old dollar; 40.33 cents on the basis of the new.

¹¹ League of Nations, *Monthly Bulletin of Statistics*, V, No. 12 (December, 1924), p. 27.

¹² League of Nations, *Memorandum on Currency and Central Banks, 1913-1924* (Geneva, 1925), I, 194.

fore it was too late. It had gone so far in France and Italy, however, that neither country was able to restore its pre-war unit of value; the French franc was devalued to 3.92 cents, and the Italian lira to 5.26 cents, as compared with a pre-war parity in both cases of 19.3 cents on the basis of our old gold dollar.

The disastrous consequences of such large-scale inflation of the currency and credit as Europe witnessed during the World War period are appalling but unavoidable. Inflation made millionaires of the Russian and German industrial workers—millionaires not only in the nominal value of their possessions, but also in their nominal annual incomes. The millions of income, however, commanded ridiculously low purchasing power over other goods. If everyone's purchasing power had increased proportionately to the increase in prices effected by the increase in the circulating medium and its velocity, this increase in prices might have remained a matter of indifference. But the sad fact was that the purchasing power of large groups of people did not keep pace with the rapidly rising price level. Economic ruin for many, financial distress and suffering for all except a limited few, were the tragic results. Inflation, with its twin, depreciation of the monetary unit, wiped out all internal public and private debts that were payable during this period. They were paid in the number of units specified in the original obligations, but these units had steadily dwindling purchasing power. The savings of a lifetime of toil and self-denial crumbled and were scattered like the dust caught by an angry wind. The economic classes depending upon fixed income from investments were almost literally destroyed. Business confusion was supreme. Men starting work in the morning could not know until the day's work was done what nominal wages they were entitled to, and then had to rush to spend the wages received for fear that their real purchasing power would soon be negligible. In the end, even the government which was responsible for the inflation failed to gain any substantial revenue, because everything the government wanted to buy had to be paid for at inflated prices. Thus in the long run inflation always defeats itself, but unfortunately the sins are "visited upon the third and fourth generations". Uncontrolled inflation is economic suicide.

THE PROPOSAL OF A FIAT MONEY SYSTEM

In the quest for an ideal standard of value the proposal is, nevertheless, recurrently made that we should abandon the use of a metallic standard and substitute for it irredeemable paper money, which circulates solely because of the decree of the government. Such money is fiat money.¹³ Fiat money is irredeemable paper money which the government issues, against which it holds no reserve of specie, and which it makes full legal tender in the discharge of obligations. Fiat money is one form of managed currency, probably the most completely managed form of currency conceivable. Its value would hinge on its general acceptability, which in turn would depend upon the success or failure of the government in controlling the supply of such money. Managed currency of the fiat-money type presupposes boundless faith in the wisdom and will-power of government not to run the money printing-presses when its own fiscal needs exceeds its revenues. The only check on the volume of fiat currency is the government's will. The argument offered in support of the alleged superiority of fiat money over metallic money may be stated thus: if government will intelligently and wisely control the amount of fiat money issued, prices can be more stable than when measured in a commodity the value of which fluctuates with conditions of the market. If a question be raised as to why anyone should be willing to accept such money, the fiat money advocate points to the limited supply and the legal-tender powers of such money in settling all obligations, private and public. He also cites the historical fact that there have been many instances of the continued circulation of fiduciary money long after there was any prospect of its ultimate redemption. People will accept fiat money, he argues, if they are confident that others will do the same.

It must be admitted that if we could be certain of the surpassing wisdom of legislative bodies in providing a stable currency, of legislative restraint in the issuance of such money, of the avoidance of

¹³ *Fiat* is the Latin third person singular, subjunctive present of *feri*, used as the passive of *facere*, meaning "to make". It therefore connotes "let it be made or done".

inflation, and of general acceptability of the money issued, a system of fiat money might conceivably work. But these conditions are virtually impossible of attainment. Moreover, should any nation try such a system alone, it would experience untold practical difficulties in conducting its foreign trade.

What experience the world has had with fiat money has come about through the inability of governments to redeem inflated issues of fiduciary money. When people believe that fiduciary money is no longer redeemable, it becomes fiat money in effect. Genuine fiat money is inconvertible from the moment it is issued. Much fiduciary money has become inconvertible through force of circumstances. It began with the promise of redemption; suspension of specie payments followed; excessive amounts were issued; people hoped that the fiduciary money was only temporarily irredeemable; ultimately came the awakening that there was no real chance of redemption, that the fiduciary money was pure fiat, or perhaps one should say impure fiat, since it was not frankly designated as inconvertible at the start. The world has had enough experience with such broken-down forms of fiduciary money, that are fiat money in effect, to learn the perilous risk of taking a chance on a system of pure fiat money.¹⁴ The tragic monetary experiences of Europe in the aftermath of the World War should never be forgotten. It may be possible to devise a fiat-money standard that would represent an improvement upon the present gold standard, but until men have acquired both the wisdom and the will to control the issue of such money in order to stabilize its value, the world's monetary experience unmistakably points to the certain calamity lurking in the use of fiat money.

THE PROMISE AND PERFORMANCE OF BIMETALLISM

The quest for an ideal standard of value is perennial. The present monetary system, in which gold functions as the standard of value with which the various forms of fiduciary money are normally interchangeable, has not always prevailed and perhaps will not always endure. For more than a century the United States, along with

¹⁴ Cf. preceding discussion on the abuses of fiduciary money, pp. 275-279.

many other countries, sought to maintain not a single but a double standard of value. Even now with some discussion concerning a possible future shortage of gold for the world's monetary needs, there is revival of interest in the possible companionate use of silver. Since the integrity and stability of the standard of value affect every economic relationship, it is not surprising that it constitutes one of the most basic inquiries of economic theory and has been one of the most perplexing issues of practical politics.

Nature of bimetallism. Bimetallism, as its name implies, is a monetary system in which two metals, gold and silver, serve concurrently as the standard of value. In contrast to monometallism it establishes a double rather than a single standard. Under bimetallism the unit of value, like the dollar, is measured interchangeably in a specified number of grains of gold or of silver. This mint or coinage ratio is fixed by statute. The mint ratio is a ratio of weights; a mint ratio of 16:1, for example, means that the unit of value shall consist either of one part by weight of gold or of sixteen parts by weight of silver. If 23.22 grains of pure gold constitute the dollar, then under such an assumed bimetallic system 16 times 23.22 grains or 371.25 grains¹⁵ of pure silver also constitute the dollar. A legislative body can fix the mint or coinage ratio because this is a ratio of selected weights; what it cannot do is to fix the market ratio, for this is a ratio of values. The market ratio of silver to gold is determined by all the forces that affect the monetary and industrial demand for these metals, on the one hand, and the cost of mining them, on the other. This ratio is beyond ordinary legislative control and fluctuates with market changes. Besides establishing a legal ratio between gold and silver, bimetallism contemplates the unlimited coinage of both gold and silver at the mints and the full legal-tender attributes of both metals.

What causes the continued interest in bimetallism and other substitutes for the gold standard is the recurring instability of prices when expressed in a single commodity. Instability in prices causes great injustice in the relations between debtors and creditors. A

¹⁵ The familiar ratio of 16:1 is approximate. The United States Congress had declared 23.22 grains of pure gold and 371.25 grains of pure silver to constitute, respectively, the gold and the silver dollars. $371.25 \div 23.22 = 15.988$, or approximately 16:1.

rise in prices affects adversely the status of persons dependent upon relatively fixed incomes and of wage-earners whose wages do not rise as rapidly as prices do. If prices fall, it is difficult to maintain the previous levels of wages and of fixed incomes. The bimetallist insists that the double standard of value will prove a great stabilizer of prices. There is no question that any monetary system that could give us greater price stability than we have had would be highly desirable. The question is, can bimetallism ensure the desired stability?

Alleged advantages of bimetallism. Such stabilization of prices, the bimetallist argues, will come through what is known as the *compensatory action* of the double standard. By this compensatory action is meant that any threatened or actual small change in the market value of either of the metals will be counteracted by a change in the use of this metal for coinage purposes. If silver, for example, should become more abundant and consequently have a tendency to fall in value in the markets of the world, it could be taken to the mints for coinage and this alternative use of silver would counteract the tendency of the market value to fall. The opportunity to coin thus compensates or offsets the tendency of silver to fall in value. The bimetallist admits that temporarily the market ratio and the legal coinage ratio may diverge, but insists that a wisely established legal ratio will soon correct the situation, restoring the market ratio to the established legal parity.

Asked how and why the legal ratio can have such a corrective influence upon the market ratio, the bimetallist argues substantially as follows. Let us suppose that the coinage ratio between silver and gold has been established at 16:1. No legislative body acting with wisdom would think of establishing such a legal ratio except as this legal ratio corresponds to the existing market ratio. To do so would be to invite disaster at the outset. For almost 200 years (1687-1873) the market ratio of silver to gold stood at about 16:1. Let us further suppose that sometime after the establishment of this legal ratio, as a result of the discovery of additional silver mines or improvements in the mining of silver, the supply of silver is greatly increased. If the demand for silver does not increase proportionately, only one thing can happen: the value of silver in the markets of

the world must decline. Let us suppose that it does. Then 16 parts of silver will no longer equal in value 1 part of gold, but, let us say, it will take $16\frac{1}{2}$ parts of silver to equal 1 part of gold in value. What follows? In accordance with Gresham's law the cheaper metal, silver, will begin to drive the dearer metal, gold, out of circulation.¹⁶ But the market itself, the bimetallist contends, will soon correct the situation and restore the parity of silver and gold at the established ratio. An increase in the use of the cheaper silver and a decrease in the use of the dearer gold for monetary purposes would decrease the market supply of silver and increase the market supply of gold. Such increase in the monetary use of silver would raise the value of silver in the market. Such decrease in the monetary use of gold would make more of it available for export and the industrial arts; since the market cannot indefinitely absorb additional gold without change of its value, the effect would be to lower the value of gold. Under a bimetallic system, therefore, with unlimited coinage of both metals, the opportunity to coin compensates for small changes in the market value of either metal, thus tending to make the market ratio coincide with a wisely established legal ratio.

That under bimetallism the legal ratio will have a steadying effect upon the market ratio is admitted by all. The important question, however, is this: will the admitted compensatory action of the double standard be strong enough in practice to keep the market ratio actually identical with the legal ratio? The bimetallist says that it will. He pins his faith to the comparatively small annual production of the precious metals in relation to the existing supply, and to the further fact that most of this increase finds its way to the mints, where under his system unlimited coinage prevails.

The bimetallist of course admits that even under the double standard there may still be a rise or fall in the general level of prices. Both silver and gold may become relatively more plentiful, and therefore cheaper than other goods. He contends, however, that the fluctuations will not be nearly as great as under the single standard.

Assumptions of bimetallism. Underlying the doctrine of bimetallism there are three assumptions upon which the effectiveness of the compensatory action of the double standard depends. The

¹⁶ Cheaper or dearer than the coinage ratio fixed by law.

basic assumption is that gold and silver will be freely interchangeable as money because of a legally established ratio between them, the unlimited coinage, and full legal-tender use of each. A second assumption is that the annual production of gold and silver will be relatively small. And a third is the assumption that the leading nations of the world can be induced to coöperate in the establishment of the bimetallic standard, so that the whole burden of coining the surplus silver or gold of the world need not fall upon the mints of a single nation. If these assumptions be false, the compensatory action of the double standard cannot work effectively in stabilizing prices. The doctrine of the compensatory action of the double standard is the essence of the bimetallic theory. The core of this doctrine is sound. It contributes whatever merit the bimetallic proposal possesses. But the corrective influence of the double standard is strictly limited by the conditions under which it must operate. Wherever bimetallism has been tried, these conditions have never yet been ideally favorable. It is doubtful whether they can be made so. The assumption that under bimetallism silver and gold would be freely interchangeable as money has not been borne out in experience. The opportunity to coin has not in practice sufficiently compensated for any increase in the amount of silver so as to stabilize the market ratio and keep it identical with the legal ratio, except when the discrepancy between these ratios was slight. The result has been that the legal ratio, which fixed the amounts of silver and gold constituting the dollar, was one thing, and the market ratio, which expressed their relative values, was another. Since values are generally fixed in the market and not by law, the cheaper metal of the market (the over-appraised metal of the mint) has invariably become the monetary medium of exchange. Instead of a double standard, a single standard has prevailed—and always the cheaper standard. Another frequently disturbing condition in bimetallic experience has been the fact that the annual production of silver, particularly, has been too large to prevent a fall in the value of silver. Governments were forced, temporarily or permanently, to abandon the unlimited coinage of silver. While bimetallism was general throughout Europe for 500 years, from the beginning of the fourteenth to the beginning of the nineteenth centuries, it was a

bimetallic system in which silver played a very much more important part than gold. At no time since the beginning of the nineteenth century has there been any real attempt at international co-operation in the maintenance of bimetallism. The British Parliament in 1816 established the gold standard and has never since looked with favor upon any bimetallic proposal. Some bimetallists have held that a single large nation, like the United States, could successfully maintain bimetallism without the aid or consent of the leading nations of the world. Under conditions, however, of large production of gold and silver, and of a remarkable economic interdependence among the nations of the world, such faith does not seem to have a very rational base.

The bimetallic experience of the United States. Bimetallism has made its best showing not in the United States but in France. After trying various bimetallic ratios, France in 1785 established a ratio of $15\frac{1}{2}$ to 1, which continued as the legal ratio until the unlimited coinage of silver was abandoned in 1874. The market ratio during this period was close to the legal ratio, now a little higher and again a little lower, but never quite identical with it. On the whole, however, during this period the conditions were as favorable for a test of national bimetallism as one can well expect. When the market ratio of silver to gold stood higher than the legal ratio, indicating that silver was over-valued at the mint, silver found its way to the French mint, and gold tended to flow into the arts or to foreign lands. Under opposite conditions silver tended to flow elsewhere than to the mint. During all of this period the divergence between the market and the legal ratios was never so great as to cause either gold or silver completely to disappear from circulation. The bimetallist sees in this fact historical verification of his proposition that a wisely chosen legal ratio will have a stabilizing effect upon the market ratio. The fact remains, however, that at no time were the ratios identical. Moreover, when the value of silver rapidly fell beginning in 1873 and it was clearly evident that gold would disappear, France finally in 1874 gave up the attempt to maintain bimetallism. England had done so in 1816. The new German Empire, organized in 1871, adopted the gold standard. The

United States, while nominally adhering to bimetallism, was actually on a gold base after 1834.

The bimetallic experience of the United States offers striking evidence of the extreme difficulty of keeping the legal and market ratios together. When Congress established the American monetary system in 1792, largely as recommended by Alexander Hamilton, the system was built upon a bimetallic standard with the ratio between silver and gold fixed at 15 to 1. This was approximately the prevailing market ratio. Before the government could put its mint into operation, however, a number of years passed, and in the meantime the market ratio changed. The value of silver in terms of gold fell, with a resulting rise in the market ratio. While the ratio fluctuated from year to year in the forty-year period from 1794 to 1834, on the average it stood a little higher than $15\frac{1}{2}$ to 1. Because the United States was a new country, and relatively isolated from the centers of commerce and finance, this divergence between the market and legal ratios did not at once result in the disappearance of gold, which was dearer in the markets than as expressed in the 15 to 1 ratio established at the mint. During the last half of this period, however, gold began to disappear from circulation. In the market one ounce of gold could be exchanged for $15\frac{1}{2}$ ounces of silver; at the mint 15 ounces of this silver could be converted into as many dollars as an ounce of gold. Anyone making such an exchange, therefore, gained one-half ounce of silver on the transaction. The inevitable result was that all available gold, including gold coin converted into bullion, was exchanged for silver, silver alone was coined, and gold completely disappeared from circulation.

This proved an unwelcome fact. In 1834 Congress took cognizance of the situation and amended the bimetallic act by establishing a legal ratio of 16 to 1 (actually 16.002 to 1). In 1837 a further slight change in the mint ratio of the metals was made when a ratio of 15.9884 to 1 was established—practically 16:1. These changes were made by reducing the amount of gold in the gold dollar to the recently existing amount of 23.22 grains. Although it was known that this ratio represented an over-valuation of gold, it was, never-

theless, made the legal ratio, because there was a very strong desire to bring gold back into circulation, and perhaps because it was thought that the value of silver would continue to fall a little more. The market ratio, however, did not permanently reach 16 to 1 until forty years later. During the period 1834 to 1873 silver was the under-valued metal, since in the markets less than 16 parts of silver had to be given in exchange for 1 part of gold. If we assume a typical market ratio of $15\frac{1}{2}:1$, for every $15\frac{1}{2}$ ounces of melted-down silver coins or of bullion 1 ounce of gold could be obtained. For this ounce of gold as many dollars could be obtained at the mint as with 16 ounces of silver. Anyone making such an exchange, therefore gained the equivalent of one-half ounce of silver on the transaction. This time the unavoidable result was that all available silver, including silver coin converted into bullion, was exchanged for gold, gold alone was coined, and silver completely disappeared from circulation. From 1834 on the country, while still nominally adhering to bimetallism, gradually worked over to a gold monometallic basis. This transition was greatly accelerated by the discovery of new gold after 1848, which widened the discrepancy between the market and the legal ratio.

In order to give legal status to a recognized economic fact, Congress in 1873 passed an act which dropped the silver dollar from the list of coins which the mint was subsequently authorized to make. The action was wholly incidental to a general revision of the nation's coinage laws. Practically no silver dollars had been coined since 1834. No one wanted silver coined in 1873 because the mint ratio under-valued it. Silver dollars were obsolete as coins. What is more, neither silver nor gold was in circulation at the time, because specie payments had been suspended beginning in 1862, and the country was getting along as best it could on a "green-back" base. Congress had hardly acted, however, before the economic law of supply and demand played a confusing trick upon mere man-made law, as if to assert the supremacy of economics over politics. Although the market ratio of silver to gold had ranged within rather narrow limits for almost two centuries, and in the monetary experience of the United States from 1792 to 1873 had never been less than 15 to 1 nor more than $16\frac{1}{4}$ to 1, the value of

silver about this time began sharply to decline. The average annual market ratio in 1874 crossed the legal ratio of 16 to 1, and twenty years later had more than doubled it. If it had not been for the abolition of the free and unlimited coinage of silver by Congress in 1873 (an act subsequently called the "Crime of 1873" by ardent bimetallists), silver would certainly have flooded the mints and gold would have disappeared from circulation. If the mint ratio could not stabilize the market ratio when the variation between them was only a little more than one part of silver, is there any real likelihood that it could have done so when the variation was many times as great?

This sudden decline in the value of silver and appreciation in the value of gold, together with the resumption of specie payments in 1879, gave rise to an insistent demand for cheaper money. One expression of it was the "greenback" movement, which permanently placed \$346,000,000 of United States notes in circulation. Another was the free silver movement, which vigorously insisted upon the reestablishment of the bimetallic standard at the legal ratio of 16 to 1. The groups interested in the reestablishment of bimetallism included, particularly, the debtor classes and those interested in silver production; the former wanted cheaper money so that they would not have to return to their creditors a larger purchasing power than they had borrowed, and the latter not unnaturally wanted a bigger outlet for their product, which was greatly augmented by the output of newly discovered silver mines. This alliance, reinforced by support from other quarters, kept the issue of bimetallism before the American people for another quarter-century. The agitation resulted in a number of compromise measures, the first of which was the Bland-Allison Act of 1878. This provided, not for the free and unlimited coinage of silver at the old ratio of 16 to 1 as the silver groups demanded, but for the monthly purchase of two to four million dollars' worth of silver, which was to be coined into silver dollars. This limited purchase compromise did not satisfy either the cheap money advocates or the silver producing interests. It provided, however, for an annual purchase of silver that was about three times as great as the total number of silver dollars coined since the establishment

of the federal government. During the twelve years that the Bland-Allison Act was in effect 378,000,000 silver dollars were coined.

In the meantime the agitation for more silver continued. In 1890 the Sherman Silver Purchase Act, another compromise measure, was passed. It provided for an increased monthly purchase of silver amounting to 4,500,000 ounces per month. The silver so purchased was paid for in a new type of paper money, the treasury notes of 1890, redeemable at the discretion of the treasury in either gold or silver. Since the parity of silver and gold had to be maintained, this meant in practice that they had to be redeemed in gold. The silver purchase policy of the government became an aggravating factor in the severe business depression of the nineties. The currency was gradually being inflated with silver and paper, the value of which depended upon the ability of the government to maintain their redemption in gold. The gold reserves of the country were being depleted by the necessity of shipping gold abroad in settlement of adverse international balances. To help get the necessary gold, bankers presented United States notes and the new treasury notes for redemption in gold. From 1890 to 1893 the gold reserves of the government shrank almost \$100,000,000, and this at a time when the gold was badly needed to protect the stability of the entire monetary system. All the time, moreover, the government was buying more silver, and indirectly assuming fresh obligations to redeem it in gold. Finally, a special session of Congress in 1893 repealed the Sherman Silver Purchase Act of 1890. The endless chain of pumping gold from the United States treasury was stopped through an understanding with the bankers by which they agreed to present no more "greenbacks" or treasury notes for redemption. During the years of its operation the Sherman Silver Purchase Act added \$220,000,000 to the silver coinage of the United States.¹⁷

The movement for bimetallism reached its climax in the exciting presidential campaign of 1896. The country was still in the throes of a severe economic depression. Prices were falling; the value of gold was rising. Debtors who had to meet their obligations during

¹⁷ Not all of the silver purchased under the Act of 1890 was actually coined until the fiscal year ending June 30, 1905. Cf. *Annual Report of the Secretary of the Treasury for the Fiscal Year Ended June 30, 1905* (Washington, 1906), p. 242.

this time found they had to work longer and harder to get the necessary number of dollars than if the price level had not fallen. Creditors gained more purchasing power than they had lent. Debtors complained. The fact that the country was actually upon a gold basis was blamed for most of the industrial and financial ills of the people. William Jennings Bryan, in the Chicago convention of the Democratic Party, closed his speech urging the adoption of a ringing platform declaration for the free and unlimited coinage of both gold and silver by dramatically exclaiming: "You shall not press down upon the brow of labor this crown of thorns. You shall not crucify mankind upon a cross of gold." The defeat of the Democratic Party, with Mr. Bryan as its standard-bearer, kept Congress from reëstablishing a bimetallic system. What stopped the agitation for bimetalism more than anything else, however, was the discovery of large new gold supplies in Alaska and South Africa. Prices rose. With the gradual return of prosperity, many of the hardships of the debtor class disappeared. Still another presidential campaign was fought in part on the money issue, although Congress in March, 1900, had definitely adopted the gold monometallic standard.

A human generation passed before the issue of bimetalism was again revived. During the depression of the thirties the agitation for bimetalism was renewed as part of the movement to raise prices by lowering the purchasing power of the dollar and "to do something for silver" in order to satisfy the insistent demands of the silver producers. By the Thomas Amendment to the Farm Relief Act of May 12, 1933, the President was given the discretionary authority to restore bimetalism at such ratio between silver and gold as he saw fit. So far the President has not seen fit to exercise this power conferred upon him, and congressional attempts to make it mandatory have failed of adoption.

Congress did, however, pass another Silver Purchase Act approved June 19, 1934. Under its main provision the Secretary of the Treasury is authorized and directed to purchase silver, at home and abroad, until the proportion of silver in the combined stocks of gold and silver of the United States is one fourth of the total monetary value of such stocks. The "joker" in the act, if there is one,

lies in the absence of any time limit for the achievement of a 3:1 ratio between gold and silver in the monetary stocks of the United States. It has been calculated that to make this act effective as of 1934 would have required the purchase of a quantity of silver equal to all the domestically mined silver in the United States for the preceding twenty years.

The silver so purchased may be bought "at such rates, at such times, and upon such terms" as the Secretary of the Treasury "may deem reasonable and most advantageous to the public interest", provided that "no purchase of silver shall be made at a price in excess of the monetary value thereof". Since the content of the silver dollar has not been changed, an ounce of silver still equals \$1.29 in silver dollars, and accordingly this represents the highest price the Secretary of the Treasury may pay. Under a presidential proclamation of December, 1933, and by virtue of powers conferred through the Thomas Amendment, the treasury began buying domestically mined new silver for 64½ cents per fine ounce—nominally at \$1.29 per ounce less a seigniorage charge of 50 per cent. (On April 24, 1935, by proclamation of the President the seigniorage charge was reduced to 40 per cent, which established a price of 77½ cents per fine ounce of silver.) Nothing contained in the Silver Purchase Act of 1934 changed this policy. Under the act, existing silver stocks in the continental United States on May 1, 1934, may be purchased at a price not in excess of \$0.50 per fine ounce, and under the ensuing presidential proclamation of August 9, 1934, which nationalized all silver except fabricated silver, the same price was offered the holders of silver. Silver certificates are issued against the stocks of silver acquired under these acts and proclamations in a face amount not less than the cost of the silver purchased. For the present the treasury is issuing silver certificates only against the actual cost of the acquired silver rather than against the statutory monetary value of silver at \$1.29 per fine ounce. For every 1,000 ounces of silver bought at \$0.50 per ounce \$500 of silver certificates are put into circulation instead of \$1,290, which are legally permissible.

If the monetary experience of the United States shows anything, it is that no single nation, however large, can hope permanently

to maintain bimetallism alone. It is even doubtful that a combination of powerful nations can do so. In the experience of the United States a discrepancy between the market and legal ratios, never exceeding a point and a quarter and usually being much less, could not be overcome by the compensatory action of the double standard. A single gold standard will always fluctuate somewhat in value, but the fluctuations will normally be due to the conditions of the market rather than to groping attempts at government control. It may be an irrational attitude, but monetary experience has taught the peoples of the world to put their faith in a standard of value that is free from political control. What men want in a standard of value is stability and certainty. Gold does not furnish these perfectly. But there is profound and widespread distrust, not in the good intentions, but in the ability of any political body to give us anything better. Faith in gold, which has endured for thousands of years, is not apt easily to be replaced by what purports to be a more rational faith in a better standard subject to arbitrary political control.¹⁸

¹⁸ For a discussion of still other monetary standards, proposed for the stabilization of prices and the control of business cycles—such as the tabular standard of value variously known as the compensated dollar, the stabilized dollar, or the commodity dollar—see Chapter XXIV, "Business Cycles", pp. 634–636.

CHAPTER XIII

THE CREDIT SYSTEM OF EXCHANGE

THE IMPORTANCE OF CREDIT IN MODERN EXCHANGE

The bulk of business today consists of credit rather than of money transactions. It is estimated that in merchandising more than 90 per cent of the business is handled on a credit or time rather than on a cash basis. The essence of a credit transaction consists in the exchange of present goods for the promise of a future equivalent. The parties to such a transaction are known as the creditor and the debtor. The creditor is one who transfers goods in the expectation of future payment. He is said to grant or extend credit to his debtor. The debtor is one who incurs the obligation of making a future payment. A person's credit is good if he can readily obtain present goods in exchange for a future equivalent. The credit itself that is asked and granted rests upon faith¹ in the personal honesty of the debtor and in his financial ability to meet his obligations when they fall due. What distinguishes a credit transaction from a cash transaction is the lapse of time.

The extension of credit greatly facilitates production. Because their credit is good, men of proved ability and integrity can supplement their own resources for productive enterprise by borrowing from others. Some of this borrowing may be for long-term investment; some of it, for current operating needs. Without the credit furnished by those who have savings to invest, a large part of modern production could not be carried on. The credit system enables producers to borrow on the anticipated value of their future products.

The extension of credit also facilitates exchange. By an intricate system of credit arrangements the consumer may buy on credit

¹ The word "credit" is derived from the Latin *creditus*, past participle of *credere*, meaning "to trust or believe".

from the retailer, the retailer may similarly buy from the wholesaler or other intermediaries, the wholesaler often is "carried" by the manufacturer, and the manufacturer frequently is indebted to the banks, which grant credit largely on the base of money deposited with them. It is readily apparent that such a credit system greatly intensifies the risk of business enterprise, for if debtors do not pay their obligations promptly, creditors may find themselves embarrassed for lack of working capital. But if the debts incurred are promptly extinguished as they mature, such a system makes possible a more even flow of goods into the hands of the ultimate consumer. Buying can be better distributed. The ever present danger lies in the over-expansion of credit, in the assumption of future obligations which cannot readily be met out of future income. The recent widespread plan of "instalment selling", under which so large a part of the furniture, household equipment, and automobile business is done, is a conspicuous example of how credit can facilitate exchange. It also carries a warning concerning the dangers of so mortgaging future income as to leave no margin for future needs and emergencies.

The general use of credit enables the exchange transactions of the world to be conducted with only a fraction of the money that would otherwise be required. Gold is needed, but principally as a reserve. The credit system substitutes for cash payments a variety of credit instruments, such as promissory notes and bills of exchange, most of which are ultimately set off against each other in bank settlements in such a way as to require the actual transfer of only a relatively small percentage of cash. A safe credit structure presupposes a sound money system. But when the foundations of the latter have been deeply and securely laid, the superstructure of business that rears its towering form is built largely of credit.

FORMS OF CREDIT AND TYPICAL CREDIT INSTRUMENTS

Investment credit. The credit structure of business is found upon examination to consist very largely of two forms of credit: long-term and short-term credit. The former is known as investment credit; the latter, as commercial credit. If the owners of a business

cannot themselves furnish all of the capital necessary for investment in land, buildings, and equipment, obviously what they need is loans of capital running over a considerable period of years. The reason is that such loans must ultimately be paid out of the net returns of the investment, and most relatively permanent investments can only slowly be converted into cash again through the sale of products derived from them. But if a business proves a successful "going concern", and if sufficient time be allowed for its net earnings to accumulate, the business can meet the claims of its investment creditors, retire its long-term loans, and find itself free from such debt. If a business tried to finance any considerable part of its investment in fixed capital by means of short-term loans, running for periods less than a year, it might very well find itself embarrassed by lack of funds when the loans mature. The typical credit instrument used to obtain long-term credit is the mortgage bond. In such an instrument the debtor signs a formal written agreement in which he promises to pay the principal sum mentioned on the terms indicated (this is his bond) and pledges part of his property as security by executing a mortgage in which he conditionally transfers title to the property to his creditor. If the debtor promptly meets the conditions of the mortgage bond which he has given, he retains an unencumbered title to his property.

Commercial credit. In addition to seeking credit for long-term investment, most businesses periodically ask for commercial credit in the form of short-term loans. Commercial credit is credit supplied for current business operations, such as the manufacture and marketing of goods. It often takes more working capital than businesses can themselves supply to pay for raw materials, to make the outlays for wages, to meet such overhead costs as heat, light, and power, to provide for insurance and taxes, to advertise and otherwise sell the goods, and to carry inventories of finished goods until they can be converted into cash. To help finance such operations short-term loans, usually running from thirty days to six months, are negotiated. Commercial loans, like investment loans, must ultimately be paid out of the accumulated earnings of a business. But if the business proves successful, and if the loans are kept well within the business earnings of the immediate future, such

loans can be safely made and promptly paid. Commercial loans are based upon quick assets, such as raw materials and finished goods, which are in constant process of liquidation and thereby provide the cash with which to extinguish the loans.

Commercial credit instruments. In the extension of commercial credit two principal types of legal instruments are used: *promises to pay* and *orders to pay*. If a business man needs credit for his ordinary current operations, the usual procedure for him is to borrow from his bank. On the strength of his credit standing with the bank, he may execute a *promissory note* in favor of the bank. His note constitutes a binding contract in which he promises to pay the bank a specified principal sum on a given date with interest at a stated rate payable either in advance or upon maturity. In the case of the promissory note the debtor is the drawer or maker of the instrument.

PROMISSORY NOTE

\$25,000.00 Madison, Wis., May 1, 1933.

Three months after date, for value received, I

promise to pay THE FIRST NATIONAL BANK OF MADISON or order

Twenty-five thousandDollars

with interest after date, at the rate of 6 per cent per annum.

Address *Madison, Wis.* *Burgess Battery Company*
By .

Business enterprises of excellent and well-known financial standing sometimes find it advantageous in meeting their credit needs to sell their promissory notes not to the bank or banks with which they customarily do business but in the open market for such commercial paper. Commercial paper houses exist whose principal function it is to take the promissory notes of borrowing business enterprises and to sell them again to banks and other financial institutions in search of highly liquid paper for the temporary investment of funds. For its services as note broker or middleman, the

commercial paper house charges a small commission, commonly 0.25 per cent. If it buys the notes outright, its profit is made by the difference between the price at which it subsequently sells the notes to investing institutions and the price paid for them. The promissory notes which it buys and sells are issued in even denominations by the borrowers. The rate of discount at which these notes can be sold to the commercial paper houses will depend upon conditions of the market, but normally the rate is lower than the customers' rate charged by the commercial banks. Indeed, this more advantageous rate is one reason why business houses may at times choose to sell their notes in the open market rather than to borrow from their banks directly. Another reason is that they may prefer to keep their "lines of bank credit" available for regular use and to rely upon the commercial paper market for unusual or seasonal demands. Still another reason is that a business house may wish to borrow more than its bank cares to lend or legally can lend to a single customer. National banks are prohibited from lending an amount greater than 10 per cent of their unimpaired capital stock and surplus to any one borrower.

Increasingly in the United States, though the practice has long been customary in other parts of the world, commercial credit is extended by means of orders to pay. In an order to pay, the creditor, not the debtor, is the drawer or maker of the instrument. A debtor may promise, a creditor can order, to pay. Orders to pay are typically represented by *bills of exchange*, or *drafts* as they are more com-

TRADE BILL OF EXCHANGE OR DRAFT

\$25,000.00Chicago, Ill., May 1, 1933At thirty days' sight pay to theorder of THE FIRST NATIONAL BANK OF CHICAGOTwenty-five thousand.....DollarsTo Harry S. Manchester, Inc.Address Madison, Wis.Marshall Field & Company

monly called. A bill of exchange or draft is an unconditional written order drawn by one party (the drawer) on a second party (the drawee), ordering him to pay a third party (the payee) a specified sum of money, either on demand or on some future date.

For convenience in selling such a commercial bill of exchange, the drawer, if he prefers, may insert his own name as payee. Bills of exchange or drafts commonly arise out of commercial transactions, such as a sale of goods by a wholesaler to a retailer. By arrangements between them the wholesaler may draw upon the retailer for the amount of the purchase price. His order to pay becomes a *trade acceptance*, if the retailer, after receiving it from the wholesaler, writes the word "accepted" across the face of the bill of exchange together with date and place of payment and over his own signature. The acceptance then has all the force of a promissory note. Such an acceptance can be sold in the money market to anyone seeking investment for idle capital funds. When the wholesaler receives the accepted bill of exchange from the retailer, he may sell it to his own banker. As soon as the bill accepted by the retailer falls due, he must pay it to the wholesaler's bank, or to whatever institution or person presents it for payment. The real source of credit in such a commercial transaction is the bank or other agency that buys the accepted bill of exchange and waits until its maturity for reimbursement. The commercial paper houses, which at one time bought and sold only promissory notes, now also deal in trade acceptances.

Trade acceptances have long been known, but comparatively little used, as a device for obtaining commercial credit in the United States. Here the customary instrument is still the promissory note, though the use of commercial bills is growing. In Canada, Great Britain, France, and elsewhere, the commercial bill of exchange is the more customary means of financing the movement of goods. Although the majority of American business men still prefer to buy goods on an open charge account, borrowing money from banks on promissory notes when needed to help meet pressing obligations, a credit system based upon acceptances has many advantages. To the seller of goods it has the distinct advantage of enabling him to secure an immediate cash payment, which replenishes his working

capital. The bank that buys the trade acceptance extends credit to the buyer of the goods. Extension of credit is one of the most distinctive functions of banks, and one which they can perform much better than the average manufacturer or wholesaler. To the buyer of goods, such as a retail merchant, the trade acceptance has the advantage of serving as a curb on the amount of his purchases. If he buys on an open book or charge account, it is easy for him to become careless in the volume of his buying and in the promptness with which he meets his obligations; the wholesaler, for fear of losing his future business, may not compel him to pay promptly. If he does business by periodically borrowing from his own bank, his relations with the bank may be such as to make it comparatively easy to obtain an extension or renewal of the loans. Such credit situations may help to breed inefficiency in the prompt conversion of goods into cash. But if the retail merchant buys goods through arranging for a trade acceptance, he definitely obligates himself to pay for the goods on a specified date. What is more, the trade acceptance will in all probability be presented for payment by a bank or other agency with which the retailer has no regular business connections. Such an institution, more easily than any other, can force the prompt payment of the account when it falls due. The trade acceptance acts as a curb upon ill-advised buying and uneconomical credit arrangements. To the banker, trade acceptances have the advantage of providing the greater security which "two-name" commercial paper presents. The drawer and the drawee (who becomes the acceptor) furnish the two names of recourse. If the acceptor of a commercial bill of exchange should default its payment, the drawer would also be liable. On the contrary, in the promissory note, which is usually "one-name" paper, only the maker is liable, unless the note has been endorsed by a second party. Banks often hesitate to ask for the endorsement of a regular customer's note, even though circumstances might warrant their asking it, for fear of giving sufficient offense to lose his future business. Since trade acceptances are based upon current purchases and sales of goods, they approach the banker's ideal of self-liquidation, and consequently are a high-class medium for the investment of bank funds. To the seller and the buyer of goods, as well as to the banker,

trade acceptances have the undoubted advantages of putting business on practically a cash basis, of eliminating open accounts that are so apt to become overdue and to obstruct the flow of future business, and of keeping the sources of bank credit fresh through constant liquidation.

In addition to the instrumentality of promissory notes, and trade bills or acceptances, credit may also be extended through a third medium, the *banker's bill of exchange or banker's acceptance*. Bankers' bills are drawn upon banks instead of on ordinary business houses as trade bills are. When a bank agrees to pay such a bill of exchange according to its terms, it becomes a banker's acceptance.

Bankers' bills may be used to finance either domestic or foreign trade, and the initiative in securing the bank credit may be taken by either the buyer or the seller of goods. Goods, the movement of which is financed through bankers' acceptances, consist of staple articles of commerce, agriculture, or industry, such as cotton, wool, and flour, which are readily marketable and the value of which is easily ascertained. In the United States bankers' bills have so far found their most distinctive place in financing foreign trade. Trade bills are not as acceptable, because in foreign trade the exporter cannot always easily ascertain the credit standing of the importer. If the importer, however, will arrange for the acceptance of the exporter's bill of exchange drawn upon the importer's bank, whose financial standing is known to be satisfactory, the transaction can be conveniently arranged.

The practice of extending credit in domestic trade by means of bankers' acceptances, which is of growing importance in the United States, may be illustrated as follows. Suppose that B, a manufacturer of woolen cloth in Boston, wishes to buy some wool from C, a wool merchant in Chicago, and to have sixty days in which to settle the account. Buyer B may arrange with his Boston bank, in consideration of a commission and through a properly supported agreement which he signs, to accept a bill drawn upon it by C, and then send C the necessary bank authority to draw. Thereupon C ships the wool and draws the authorized bill of exchange upon the Boston bank. After attaching the bill of lading, which he receives from the transportation company, and other necessary documents to it,

he may sell it to a Chicago bank at a discount and thus get immediate payment for his wool. The Chicago bank sends the bill to its Boston correspondent, who presents it to the Boston bank for acceptance. The Boston bank, having agreed to do this, stamps the usual acceptance form across the face of the bill and signs it, thereby converting the banker's bill into a banker's acceptance. The Boston bank is now responsible for payment of the acceptance sixty days from the date it bears. The acceptance may now be sold in the open market to an acceptance dealer and thus the Chicago bank be reimbursed. Prior to the expiration of the sixty days B must provide his bank with funds to pay the acceptance which some investing holder will present, thereby closing the entire transaction.

If the bank sells the acceptance in the open market, as is customary, it lends no funds of its own to its customer. What it does is through the instrumentality of its own good name to enable its customer to secure funds in the open market on very favorable terms. Acceptance dealers buy such paper and then sell it again, principally to banks in search of highly liquid investments. Since bankers' acceptances are generally drawn only upon banks of widely recognized standing, they combine security with high marketability, which makes them a very desirable medium for the investment of capital funds that the owner wishes to keep as liquid as possible. The rates at which they can be sold are lower than the rates on either customers' loans at the commercial banks or the rates on commercial paper.

BANKER'S ACCEPTANCE

<u>\$50,000.00</u>	<i>Chicago, Ill., July 1, 1934</i>
Sixty	days from
	sight
pay to the order of <u>Ourselves</u>	
<u>Fifty thousand.....</u> Dollars	
To <u>The Boston Bank</u>	
<u>Boston, Mass.</u>	<u>Chicago Wool Merchants</u>

Superimposed on the face of the above bill will be a form like the following:

No. _____
 Accepted _____
 Due _____
 Payable at _____
 The Boston Bank

CONVERSION OF PERSONAL CREDIT INTO BANK CREDIT

Bases of personal credit. In extending credit, whatever its purpose and means, the important question which every prospective creditor must consider is this: will the prospective debtor be able promptly to meet the financial obligation which he seeks to incur? If it is a case of asking for credit from a merchant, the merchant is keenly interested in knowing whether the customer will pay his bill promptly when it is presented. If it is a matter of asking for credit from a bank, the banker must be satisfied concerning the customer's trustworthiness before he is warranted in making the loan.

In extending credit either to an individual or to a business enterprise, both the character and the economic status of the borrower are matters of prime importance. A borrower's ability to obtain credit is sometimes said to rest upon four C's of credit: *character*, *capacity*, *capital*, and *collateral*. Integrity of character, evidenced by a solid reputation for faithfulness in the discharge of past obligations, is presumptive evidence of the borrower's good intentions in the future. Strong character inspires confidence. A tarnished reputation raises questions and prompts rigorous safety measures to ensure the security of a possible loan. But honesty of character alone does not suffice as a basis of personal credit. There must also be confidence in the borrower's capacity to pay. His reputation for ability, based upon certain personal qualities, training, and successful experience, gives reasonable assurance that he will in time acquire the means with which to repay the loan. The combination of character and capacity is often enough to secure necessary credit. It is the foundation of so-called "character loans" for which no other security is asked. In procuring a bank loan of any considerable size, however, or in establishing a line of credit with a bank, which

enables a business enterprise to borrow up to a specified maximum amount, the unencumbered capital or resources of the borrower are of great importance. The larger the unpledged capital of a borrower, the greater is his borrowing power. But not all capital makes good collateral security for a loan, because it is not readily marketable. If the borrower is a successful business man, he is usually able to borrow something on the strength of what his own financial statement of assets and liabilities shows his net worth to be. If his resources are fairly liquid, that is, easily converted into cash, or if his business is a strong "going concern", his potential borrowing capacity is much greater than if the reverse is the case. If he has specific property, such as stocks and bonds, or real estate, which he can conditionally assign to the person or institution lending him money, his ability to obtain credit is greatly enhanced. Lenders, whether individuals or institutions like banks, must protect their own solvency by carefully scrutinizing the conditions on which credit is granted.

The exchange of personal credit for bank credit. If a person's credit is to be most usable in exchange transactions, it is necessary to convert it into bank credit, which is more generally acceptable. Without bank credit against which he has the right to draw, a person seeking goods in return for the promise of a future equivalent must establish his credit standing with each individual seller. With bank credit, the process is much simplified: he satisfies the bank that he is entitled to credit, obtains a loan either in the form of cash or deposit credit, and uses the funds so obtained in doing business with others.

To obtain a bank loan, an acceptable borrower must sign a promissory note in which he agrees to pay the bank a specified sum on a given date—say \$10,000 at the end of six months. The note may read either with or without interest. If it reads with interest, at an assumed rate of 5 per cent, the borrower receives \$10,000 on the date of the loan and six months later must pay the bank \$10,250, principal and interest. The process is known as loaning, and the interest amounting to \$250 represents the price paid the bank for the immediate use of the funds.

If the note for \$10,000 payable six months from now reads with-

out interest, the bank cannot afford to give the borrower the final sum of \$10,000 at the time of granting the loan. If it did so, it would receive no compensation for its services in the transaction, because the note calls for the payment of only \$10,000 at its maturity. To both borrower and lender \$10,000 today is worth more than \$10,000 six months from now. Consequently, what the bank does is to discount the note at the prevailing rate of bank discount. If it be assumed that this rate is 5 per cent, the bank discount on \$10,000 payable in six months will amount to \$250. The bank, accordingly, gives the borrower cash or deposit credit amounting to \$9,750 and six months later collects \$10,000. This process is known as discounting; discount differs from ordinary interest in that it is collected in advance by deducting it from the principal of the loan. Interest is paid at the maturity of a loan.

Whether a borrower pays interest on the principal sum of his note at maturity or accepts a bank discount of this principal sum in advance, he always has the option of taking the proceeds of the loan in cash or deposit credit. Usually, borrowers elect to receive deposit credit, because this is safest and most convenient. Since both interest and bank discount are computed on the face value of the note, it is evident that discount collected in advance is more profitable to the bank than equal interest collected at maturity, because the bank has the immediate use of the discount. The proceeds of a note that has been discounted also represent a somewhat smaller investment to a bank than a note that must be collected at maturity; in the above situation, under the discounting operation only \$9,750 of the bank's funds are transferred to the borrower, as compared with \$10,000 in the case of a loan with interest at maturity.

ORIGIN AND STRUCTURAL DIFFERENTIATION OF BANKS

Origin of banks. As the preceding discussion on the necessity and means of converting personal credit into bank credit has shown, the institutions on which the credit system of exchange is built are the banks. The progenitor of the modern banker was the goldsmith of the Middle Ages. In great trading centers like Venice, Genoa,

London, Amsterdam, and Hamburg a large variety of coins was in circulation, many of them being of doubtful value. To determine their true equivalent value required the special knowledge and technique which the goldsmiths had, since they were workers in precious metals. Accordingly, the necessities of business compelled some goldsmiths to become money-changers. To their habit of keeping money and bullion in a strong box on a bench (called "bank" in German, "banc" in French, and "banca" in Italian), the present terms of "bank" and "banker" are doubtless due. In addition to appraising and exchanging foreign and domestic coins, these goldsmith-bankers sometimes undertook the custody of the money of their customers—a function which ultimately developed into the modern banking function of receiving deposits. While the money left with them for safekeeping was subject to the call of the depositors, experience proved that few of these called for their funds at the same time. The goldsmith-bankers had money on hand, supplied partly by themselves and partly by those who left money with them, some of which they found they could lend at interest and still meet the demands of their depositors for cash. From such simple beginnings, the intricate structure and operations of modern banking have developed. Gradually, the business of exchanging, receiving, and lending money became so profitable that many goldsmiths gave up their craft in order to devote themselves exclusively to banking. Some municipal governments, particularly of important commercial cities, set up banks of their own.

While banking of a sort was known in antiquity among the Babylonians, Egyptians, Greeks, and Romans, modern banking can trace its ancestry directly to the great Italian banks of the Middle Ages. This does not imply that banking as we know it today goes back to the Middle Ages, but rather that it had its beginnings then. The Casa di Giorgio of Genoa, established in 1148, began functioning in 1408 as a bank for the book transfer of payments. Venice had private bankers, devoting themselves to deposit banking, in the fourteenth century. The frequent failure of such private banks led to the establishment in 1584 (1587?) of a public bank, the Banca della Piazza del Rialto, which did business until 1806. The municipal Bank of Amsterdam was established in 1609. Largely, though

not exclusively, developed by private enterprise, banking affects all business so vitally that the maintenance of a strong banking system has always been a deep concern to government.

Kinds of American banks classified as to source of legal power. The banking system of the United States includes a variety of banking institutions. Some of these are chartered by the federal government and others by the States. Since the adoption of the National Banking Act in 1863 the United States government has chartered national banks; about 5,200 such banks were in existence in 1934. In 1913, after fifty years of experience with the national banking system, Congress created the federal reserve banking system, a sort of super-banking system designed particularly to federate all the national banks and eligible state banks. Twelve federal reserve banks were chartered by the United States government in 1914; these have since established twenty-five branches.

With the passage of the Federal Farm Loan Act of 1916, the United States government authorized the creation of special types of mortgage banks, designed to help finance agriculture, which ordinary commercial banks cannot do very satisfactorily. Twelve federal farm land banks have been established in territories roughly corresponding to the twelve federal reserve bank districts. These banks are investment banks; through the sale of securities they raise funds with which to make farm mortgage loans to local coöperative farm loan associations, composed of farm-owners who want to borrow. Twelve institutions, known as intermediate credit banks and managed by the federal farm land banks, provide credit for investment, not in real estate, but in livestock and in warehouse produce. Farm land banks and intermediate credit banks are both under the supervision of the Farm Credit Administration, which is the United States government's administrative agency for supervising agricultural credit.

To help meet the financial needs of prospective home-owners the federal government in 1932 established twelve regional federal home loan banks. The capital stock of these banks, other than what is supplied by the United States government, is subscribed for by member institutions, consisting principally of building and loan associations. Individual home-owners, actual and prospective, may be

come members of building and loan associations, and through them obtain loans with which to help finance the ownership of their homes. These loans can then be amortized over a period of years through monthly instalments. Member institutions can borrow from the federal home loan banks on the security of the home mortgages they hold and thus increase their facilities for lending to homeowners.

In addition to the banks chartered by the United States government, the American banking system includes a variety of institutions established by the States. In fact, the majority of American banking institutions are chartered by the States; on December 30, 1933, 10,058 out of a total of 15,212 banks were state institutions. Of these much the largest number were commercial banks. Loan and trust companies, savings-banks, and private banks make up the rest. Loan and trust companies specialize in the investment and care of their customers' funds, including the administration of trust estates, both of the living and of the dead. In the course of their development, however, some of them have come to assume most of the ordinary functions of commercial banks, such as receiving deposits subject to check and making commercial loans to their customers. Savings-banks accept deposits, normally small in amount and sometimes restricted as to the total, invest them as securely as possible, and pay a relatively low but certain interest rate upon them to their depositors. Private banks are unincorporated institutions, organized under general State law as sole proprietorships or partnerships and devoted very largely to investment banking. J. P. Morgan and Company is such a private bank; in 1934 it was a partnership with twenty-one members. Private banks, like those associated with the names of Morgan in New York and of Rothschild in London, Paris, and other European financial centers, play an important part in the promotion of corporate enterprise, in the underwriting of security issues, and in handling the transfers of international finance.

Structural types of American banks. American banking has been intensely individualistic. Nowhere else has unit banking developed as it has in the United States. Characteristically, American banks have been unit banks, locally owned, managed by local men, and

neither operated nor affiliated with any other banking institution. The great majority of the banking offices of this country are still unit banks.

In direct contrast to unit banking stands branch banking. In a branch banking system a parent bank establishes branches in various localities, but all of the branches are controlled by the board of directors of the parent bank, and a single capital structure suffices for all branches in the system. Almost every important commercial country in the world, with the striking exception of the United States, has a system of branch banking. In Canada, with a territory approximately as large as that of the United States and a population no larger than that of metropolitan New York, the unit bank has disappeared. Ten banks with almost 4,000 branches do the banking business of Canada. In England, too, the unit banks which flourished a century ago have almost disappeared. Instead there are sixteen branch systems, controlling more than 8,000 branches; what is more, the so-called "Big Five"² own and manage 97 per cent of these branches. Branch banking is the system in virtually all Europe and has established itself wherever European banking influence has been dominant. The system is by no means foreign to the United States, since twenty-three of our States permit branch banking in one form or another, California being the most notable example.

Because of the limited amount of branch banking allowed under the federal law and because of the positive prohibition of branch banking by eighteen States, chain and group banking has grown up in the United States alongside of our unit banking system. Until comparatively recently the term "chain banking" was commonly used to describe any centralized ownership of banks, other than the branches of a parent bank. Within the past few years, however, a more restricted meaning has been given to the term in financial literature. A chain banking system is a system in which ownership and control are vested in an individual, family, or group of individuals. The banking units in the chain retain their separate capital structures but are all controlled by the same individual or group of individuals.

² Barclay's, London Joint City and Midland, Lloyds, National Provincial and Union, and Westminster are the five big branch banking systems of England.

"Group banking" is a term used to designate a system in which ownership and control of the banks in the group are typically vested in a holding company, or in a directly controlling bank where this is legally permissible. The holding company is usually organized for the purpose by the leading stockholders of the principal banks in the projected group. In most cases the group centers around some strong, well-known metropolitan bank. The banking units in the group retain their separate capital structures, together with their distinct boards of directors and managing officers—indeed in law are unit banks—but ultimate control rests with the holding company. The Wisconsin Bankshares Corporation, The First National Bank Stock Corporation and the Northwest Bancorporation, both of Minneapolis, and the ill-fated Guardian Detroit Union Group, Inc., of Detroit are familiar examples.

Whatever fine distinctions writers may draw between chain banks and group banks, popularly no such distinction is made. The staunch defenders of our unit banking system and aggressive opponents of banking combinations of the branch, chain, or group types find it strategic to use the suggestive term "chain banking" to designate the entire bank combination movement. Names are sometimes Leyden jars of sentiment. They may repel or attract. "Chains" are suggestive of servility. The proponents of branch and group banking are at a disadvantage in the argument in not having as colorful a name to commend their systems as their opponents have to condemn it.

FUNCTIONS OF BANKS IN THE CREDIT SYSTEM

More important, however, as a mark of differentiation than the governmental source from which a bank derives its powers or the structural type that it represents are the functions which it performs. Banking is of two general types: commercial and investment banking. Although both of these phases of banking have frequently been handled by the same institution, they are, nevertheless, distinct and are recognized as such in the internal organization of banks. Federal law has now compelled the divorce of these functions. More distinctively than in anything else, commercial banking consists in using funds for making *short-term loans* to borrowers, which it is

expected will be readily and promptly liquidated out of current earnings. Investment banking, on the other hand, is distinguished by *long-term loans* to borrowers. The investment banker purchases large issues of securities and resells them to investors seeking a relatively long-term commitment of their funds. The federal reserve banks, as will be shown later in this chapter, are strictly commercial banks; their loans, however, except under emergency conditions and powers, are only made to banks. The national banks and state banks are predominantly commercial banking institutions. Mortgage banks, savings-banks, and most private banks are investment banks.

Receiving deposits. Perhaps the most familiar function of commercial banks is the receipt of deposits. The deposits of a bank fall into two classes: demand deposits and time deposits.

Demand deposits are precisely what their name implies: deposits made by a bank customer subject to withdrawal upon demand. Whenever a depositor wishes to use his bank funds for any purpose, he may draw a check against them ordering the bank to pay to the specified person or bearer the amount stated in the check. The balance of his checking account with the bank will be decreased by the exact amount of every check so drawn. To offset such outgoing payments and to prevent the depletion of his checking account the bank customer must of course from time to time make new deposits of money or its equivalent in credit instruments. The greater convenience, economy, and safety of making payments with the aid of checks rather than by the direct use of money have led to the enormous growth of deposit banking in modern times. Since many checks drawn by depositors upon a given bank are redeposited in the same bank by other depositors, it is evident that the settlement of such accounts involves only bookkeeping transfers within the bank itself, some accounts being charged or debited and others being credited by like amounts. Similarly, every important bank in a financial community daily receives as deposits checks drawn upon other banks in the same community, and at the same time becomes indebted to each of them by the amount of the checks against itself received by them. In the daily settlement between any two banks, either directly or indirectly, comparatively little cash need be used. Only the adverse balance must be paid in cash or an acceptable

equivalent. The establishment of bank deposits, therefore, and the process of drawing checks against them greatly simplify and facilitate the transaction of business.

Time deposits represent funds left with a bank not on call but for stated periods of time. Funds thus deposited customarily draw interest. Withdrawal of such deposits technically requires prior notice of intention to withdraw, at least thirty days' notice usually being required. This requirement is generally not enforced except during periods of economic distress. Loss of interest on time deposits not left with a bank for the customary minimum of three months tends to reduce the number of irregular withdrawals. A larger percentage of a bank's time deposits can be invested, in less liquid forms of loans, as well as for longer periods of time, than is the case with its demand deposits, because the bank is not compelled to pay them on a moment's notice.

While it is natural to think of the process of receiving deposits as consisting of the deposit of money, the great bulk of a country's bank deposits does not originate in this way. Statistical proof of this statement is found in the fact that in the United States, for example, bank deposits in 1934 were more than seven times as large as the total supply of money in the country. Not only cash but also credits may be deposited. The credits which help to build up a depositor's account may originate in two ways: they may be credit instruments, such as checks and drafts, drawn in his favor and left with the bank for collection (what are known as cash items); or they may be the proceeds of loans obtained from the bank by the depositor himself and entered to the credit of his checking account.

Making loans and discounts. For the dual purpose of serving the credit needs of its community and of investing its funds so as to realize earnings, a bank engages in the business of making loans and discounts. Loans are made in consideration of a price paid by borrowers; interest is the price paid by borrowers for the use of a sum of money or its equivalent for a specified period of time. Interest may be paid either upon maturity of the loan or in advance at the time that the loan is made. If interest on a loan is collected or deducted in advance it is known as discount. Unfortunately for precision in the use of words, the term *discount* sometimes also means

the *process* of lending by the method of collecting interest in advance and again in the parlance of financial circles is at times loosely used as synonymous with loans. When a bank in its financial statement lists among its assets *loans and discounts*, it enters the face value of all the loans it has made, whether the interest is payable at maturity or has been paid in advance. It is evident that on the date such a statement is made the bank understates, by the amount of the accrued interest, the value of the loans with interest and overstates, by the amount of the discount collected but not yet earned, the value at the moment of the loans that have been discounted. These apparent value discrepancies are corrected by entering as an asset *interest earned but not collected* and as a liability *discount collected but not earned*.

The loans made by a commercial bank in exchange for the promissory notes of its customers fall into two main classes: loans on collateral security and loans on the credit standing of the borrower without the pledging of specific security. If the loan is a "collateral loan", the borrower delivers to the bank securities, such as government or corporation bonds, stocks, bills of lading, or warehouse receipts showing ownership in marketable commodities, the market value of which is substantially greater than the amount of the loan. If through some mishap the borrower is unable to pay his note upon maturity and the bank is unwilling to renew it, the collateral may be sold to pay the loan, any excess of course being returned to the borrower. Loans on the general credit standing of the borrower are sometimes called "unsecured loans", which merely means that no specific property is pledged to support them. They represent a claim, however, against all the unencumbered assets of the borrower, which are presumed to be ample to meet the obligation.

In seeking a bank loan, what a customer of good financial standing wants is a more convenient and readily acceptable means of making payments than his own promissory notes afford. The cash or deposit credit which the bank extends him provides the desired medium. What the bank really does is to substitute its own credit, which is generally acceptable, for the credit of the borrower, which is not so widely acceptable.

Usually the extension of loans by a bank results in some net in-

crease of its deposits. Deposits arising from loans are known as "derivative deposits" to distinguish them from "primary deposits", which consist of cash or cash items left with a bank. Loans are made for a purpose. Although they temporarily take the form of deposit credit equal to either the face value or the proceeds of the loans, the borrower-depositors soon check against them, thus reducing their deposit balances. These checks in turn become "primary deposits" for the banks that receive them. What part of its "derivative deposits"—those resulting from loans—an individual bank is likely to hold depends upon local banking conditions and practices. Unless the bank is isolated, from 5 to 20 per cent represents a fair estimate for banks in the United States. While from one point of view it may be said that loans result in deposits, from another it may be equally truly said that deposits tend to create loans. The reason is that a bank cannot afford to be the custodian of idle deposits, unless depositors are willing to pay the cost of such custodianship. Normally, a bank gets its principal income from the making of loans. The bank, therefore, has a strong motive to put its deposits to work in income-producing loans or other investments. In the ordinary business of commercial banking there is a fairly constant intake of fresh deposits and an outgo of new loans. At the same time old deposits are being withdrawn through checks and other instruments of withdrawal, and maturing loans are being paid. Except under unusual circumstances, the general level of a bank's deposits and loans changes fairly slowly.

In shaping its credit policy a bank is guided by three principal considerations: the credit needs of its customers, the safety of its deposits, and the necessity of earning income to pay for its own operations. A bank is naturally interested in meeting the credit needs of its customers because the bank itself only grows with the economic development and prosperity of its community. No bank will decline to make a good loan provided it falls within the scope of its particular type of banking business and the bank directly or indirectly is able to make it. But what a bank must always consider in making loans is the safety of its deposits. Indeed, a bank's first duty is to its depositors. It should at all times have sound assets with which to

pay its depositors in full and to keep its own capital unimpaired. Within the limits of such safety the profits motive impels bankers to meet the current demand for loans. In their practice of making loans some bankers get the reputation of being "conservative", which means that they put "safety first", and others of being "liberal", which means that they are disposed to take bigger chances and which in the end has often proved to mean that they have been too "liberal" with "other people's money".

There is a good deal of popular confusion concerning the lending capacity of any individual bank. It is often said that a bank simply manufactures credit, the implication being that the bank makes it out of nothing. But the old philosophical dictum *ex nihilo nihil fit* is still true and applies with great emphasis to bank credit. It is absurd to suppose that credit can be made out of nothing. Banks to a large extent direct the flow of credit, but the credit extensions themselves can only be made because of the resources of the bank supplied by its deposits, capital, and surplus.

The lending capacity of any single bank is rather closely restricted by its cash resources (its cash and items readily convertible into cash), being only a little—perhaps 10 per cent—in excess thereof. Professor Phillips has suggested a formula for calculating what an ordinary bank in normal inter-bank relations can lend as a result of an accretion of cash through new deposits.³ Suppose that a bank receives \$10,000 in new demand deposits against which it must maintain a cash reserve of 10 per cent, which is the average for banks that are members of the federal reserve banking system. As a result of this increase in cash the bank is in a position to expand its loans and will be impelled to do so if there is an active demand, in order to invest its deposits profitably. Suppose further that of its loan-credit-deposits (derivative deposits) the bank loses 80 per cent to other banks, because the borrower checks against his newly created deposit and the checks become the primary deposits of other banks. The Phillips formula for the possible credit expansion of a single bank is as follows:

³ C. A. Phillips, *Bank Credit* (New York: The Macmillan Company, 1920), Ch. III, especially pp. 55–56.

$$x = \frac{c(1-r)}{Kr+1-K}$$

In this formula x = the possible expansion of loans resulting from new deposits or cash; c = the additional cash deposited which increases the bank's reserves (\$10,000); r = the required percentage of cash reserves against deposits (10 per cent); and K = the percentage of the derivative deposits which remains in the bank (20 per cent). If now the actual figures be substituted in the formula we find that

$$x = \frac{\$10,000(1-.10)}{(.20 \times .10) + 1 - .20} = \frac{\$9,000}{.82} = \$10,975.60$$

According to this theory the loans that can be made exceed the new cash deposits by less than 10 per cent. If we assume that 80 per cent of the possible \$10,975.60 of new loan deposits will be checked out to other banks and 20 per cent will remain as derivative deposits in the bank, the bank will lose \$8,780.48 of its \$10,000 increase in cash, retaining \$1,219.52 as a net increase in its cash reserves. At the same time its derivative deposits will now stand at \$2,195.12 (\$10,975.60 - \$8,780.48), which with the original primary deposit of \$10,000 will make the increased deposit liability as a result of these assumed transactions equal \$12,195.12. The increase in the cash reserve of \$1,219.52, if a 10 per cent cash reserve against deposits is required, will just support the increase in the loan-created-deposits.

The reason then why in these days of constant inter-bank relations a single bank cannot lend much more than the deposits supplied by its customers is that through the ordinary process of checking against them a bank soon loses the bulk of the deposits created through loans. If the bank is isolated or dominates the banking life of its community, the percentage of its derivative deposits which it will retain through transfers to other accounts within the bank will be much larger than under the usual banking conditions. If an ordinary bank had the temerity to expand its loans several times over any addition to its cash resources, it would run the grave risk of losing the bulk of these loan-created-deposits to other banks, which might imperil its cash position.

Although an individual bank cannot expand its loans very much

more than the amount of any increase in its cash deposits or reserves, this is not true of the banking system as a whole. Multiple expansion of credit for the system as a whole is possible because the ordinary bank does retain a percentage of its loan-created-deposits, resulting from fresh accessions of cash, even though it loses the bulk of such deposits to other banks. The part, say 80 per cent, which it loses to them is payable in cash and becomes a primary deposit for them. With increases in their cash these other banks in turn are in a position to expand their loans and will do so if there is an active demand. As a result of the ordinary dispersion of derivative deposits from bank to bank and the accompanying readjustments in their cash position, it is possible for the banking system as a whole to expand credit several times over any new accessions of cash if the banks affected are all willing to expand their loans.

One very noticeable change in the operation of banks during the depression of the thirties has been the sharp decline in loans, which for all banks in the United States, has almost reached 50 per cent, from the amount outstanding in 1929. This has of course drastically reduced the earnings of banks. In good times as well as bad, however, banks invest their funds not only in loans but also in high-class securities, particularly those that can readily be converted into cash. In addition to ordinary loans and discounts, including commercial paper and bankers' acceptances bought in the open market, the investment portfolio of a typical large city commercial bank will include United States government securities, State and municipal bonds, and the bonds of private corporations. Banks as a rule are not allowed to hold stocks. After meeting his local demand for credit from those entitled to it, the practical problem of every banker is so to invest his funds as to ensure necessary liquidity on the one hand and earning power on the other.

The following statement of the condition of the First National Bank of Chicago, published in response to the call of the Comptroller of the Currency, which is issued to national banks at least three times per year, will illustrate some of the foregoing discussion of banking functions and at the same time furnish the reader an actual financial statement of a typical bank.

THE FIRST NATIONAL BANK OF CHICAGO

STATEMENT OF CONDITION JUNE 29, 1935

ASSETS

Cash and Due from Banks	\$461,700,432.75
United States Obligations—	
Direct and fully Guaranteed,	
Unpledged	\$89,198,614.43
Pledged—To Secure Public Deposits	11,257,000.00
To Secure Trust Deposits	43,000,000.00
Under Trust Act of Illinois ...	500,000.00
	143,955,614.43
Other Bonds and Securities	67,839,187.55
Loans and Discounts	182,062,069.33
Real Estate (Bank Building)	9,200,913.48
Other Real Estate (7 South Dearborn Street)	1,934,793.60
Federal Reserve Bank Stock	1,800,000.00
Customers' Liability Account of Acceptances	2,378,440.80
Interest Earned, not Collected	1,820,662.64
Other Assets	654,875.62
	<u>\$873,346,990.20</u>

LIABILITIES

Capital Stock—Preferred	\$ 25,000,000.00
Capital Stock—Common	25,000,000.00
Surplus Fund	10,000,000.00
Other Undivided Profits	2,005,268.19
Special Reserve	5,000,000.00
Discount Collected but not Earned	502,158.22
Reserve for Taxes, etc.	2,301,117.31
Liability Account of Acceptances	2,646,532.84
Time Deposits	\$150,978,877.92
Demand Deposits	546,548,395.74
Deposits of Public Funds	103,031,894.10
	800,559,167.76
Liabilities other than those above stated	332,745.88
	<u>\$873,346,990.20</u>

Issuing notes. The issuance of bank-notes which circulate as money is properly the function only of central banks like the Bank of England, or of our corresponding institutions, the federal reserve banks. In the United States, however, both state and national banks have had the privilege; national banks retained it until 1935, when the retirement of the notes began. The power of state banks to issue circulating notes, after many abuses leading to heavy losses by their holders, was legislated out of existence in 1866 through the imposi-

tion by Congress of a tax of 10 per cent per annum on notes issued by state banks, which tax proved prohibitive. The result was that only the national banks, which had been established under the National Banking Act of 1863, could in practice exercise the power of issuing circulating notes. Until the creation of the federal reserve banks fifty years later, the national banks had a monopoly of the note-issuing function.

Bank-notes are simply the promissory notes of banks circulating as money. Banks are obligated to pay them in other money on the demand of any note-holder who presents them. Since the notes of our national banks circulated for years, and their holders usually knew nothing of the financial standing of the bank issuing them, the issue of such notes by the national banks was strictly regulated under the law. Three conditions were imposed. First, the notes had to be secured dollar for dollar by United States bonds owned by the issuing bank and deposited with the Treasurer of the United States as a guarantee of payment. Until recently only the 2 per cent Consols and Panama Canal bonds could be pledged as such security. Under legislation enacted July 22, 1932, and for an emergency period of three years, national banks were permitted to deposit any United States government bonds bearing interest at a rate not exceeding $3\frac{3}{8}$ per cent. Second, the issuing bank had to maintain in the United States treasury a redemption fund in lawful money amounting to 5 per cent of its outstanding issue. Third, the total note issue of any bank could not exceed the amount of its capital stock. The purpose of these restrictions was to limit the quantity of such notes issued and to ensure the payment of the notes regardless of the fate that may befall the banks. In 1934 the amount of the national bank-notes in circulation ranged from \$900,000,000 to \$1,000,000,000.

Since our bond-secured national bank-notes did not represent a flexible element in our currency, expanding and contracting with business needs, they were not really a very useful currency element. Whatever they contributed could be much better done by the federal reserve notes. National bank-notes were largely an historical anachronism in our currency. When the national banks were established during Civil War days, these banks were given the power to issue their notes against the security of government bonds to help

create a better market for government bonds. The power survived for more than seventy years.

Solvency and liquidity of banks. Sound banking assumes that in conducting its operations a bank will at all times remain solvent and at the same time maintain sufficient liquidity to meet the demands of its depositors for cash. A bank is solvent when the fair market value of its assets equals or exceeds its liabilities. The liquidity of a bank depends upon its cash resources and other quick assets readily convertible into cash. The resources of a bank which ensure liquidity are cash and other assets quickly convertible into cash.⁴ The liquidity of a bank is indicated by its "reserve ratio", which for the ordinary bank means the ratio of its quick assets to its demand deposit liabilities.

In practice, the reserves of a bank are further designated as "legal reserves", "primary reserves", and "secondary reserves". For banks that are members of the federal reserve banking system, legal reserves are strictly limited to prescribed percentages of deposits which the banks must carry as balances with the federal reserve bank of their district.⁵ For non-member banks the legal reserves are whatever amount in lawful money the law of the State requires to be held against deposits. Although both the form and location of the legal reserves of a bank are strictly prescribed, its actual reserves are much larger. In meeting the claims of its depositors for cash a bank first falls back on its primary reserves, which consist largely of cash in its own vault and deposits with other banks, including the federal reserve bank of its district, as well as exchange items in process of collection. Supporting the primary reserves are the secondary reserves, which function much in the same way as a football "secondary defense" backs up the "line" that must first withstand the attack. The secondary reserves of a bank include call loans based on stock-exchange collateral, bankers' acceptances and commercial paper eligible for rediscount at the federal reserve bank, United States government securities, and other high-grade bonds of near maturity.

⁴ This is the "orthodox" or conservative view of liquidity. The more "liberal" view of liquidity identifies it with "shiftability" and would include in the liquid assets of a bank any investments that can readily be sold in the market.

⁵ Cf. discussion later in this chapter of the specific legal reserve requirements of member banks of the federal reserve system, pp. 329-330.

The practical problem of every commercial bank is so to handle its funds as to have adequate reserves or liquidity on the one hand and on the other to make loans and investments that will produce income. The more liquid a bank, the lower its earnings will be. The main objective in the selection of the secondary reserve account of a bank is marketability in case cash is needed; the contribution of the account to the earnings of the bank, while important, is subsidiary. It is the investment account of a bank, together with its loans, which is relied upon to yield the earnings. The great bulk of a commercial bank's earnings normally comes from loans made in meeting its community's need for credit. Bonds in the investment portfolio of a bank may include government, railway, public utility, industrial, real estate, investment trust, and foreign bonds. Should it become necessary for a bank to increase reserves in order to meet some of its demand liabilities, several courses of action are open to it. It may sell some of its investments and receive either cash or bank deposit credit in exchange for them. Or it may present some of its commercial paper to its federal reserve bank (or to some correspondent bank in the case of non-member banks) for rediscount and receive either cash or deposit credit in exchange. Still another thing the bank can do to raise the ratio of its reserves to its deposit liabilities is to decrease its liabilities. Since many deposits are derived from loans, they will inevitably decrease if a bank calls its demand loans, declines to renew maturing loans, or makes it more difficult to borrow by raising its discount and interest rates and using other methods to discourage applicants for loans. If on the other hand, liquidity is not a prime consideration and the reserve ratio can safely be lowered, a bank will pursue the opposite policy. It will convert cash or bank credit into investments, including commercial paper, bankers' acceptances, and bonds, and will make the terms and conditions for loans as attractive as possible. It is much easier, however, for a bank to restrict credit than to expand it, because it has the direct power to do the former while the ultimate decision concerning the latter rests with the potential users of bank credit. If they are not interested in borrowing because of gloomy forebodings or a dismal outlook for business, a bank can do little in expanding its loans.

THE FEDERAL RESERVE BANKING SYSTEM

The United States had no real banking *system* prior to 1914. There were many thousands of independent local banks, some of them large but most of them too small safely and adequately to discharge the usual banking functions. Twice in our history we had had a central bank. The First Bank of the United States was chartered for a twenty-year period from 1791 to 1811. It was sponsored by Alexander Hamilton and ably supported by another great Secretary of the Treasury, Albert Gallatin. It performed its function as a central bank efficiently, extending credit largely through note issues, which it kept on a thoroughly sound basis. Economic opposition to its conservative credit policies by many of the local banks, and political opposition in Congress led by Henry Clay on behalf of the agricultural interests of the West, which it was alleged were not properly served, resulted in failure to renew the charter. After five years of financial chaos intensified by the War of 1812, and during which the local banks issued unsound currency and ultimately themselves collapsed, Congress authorized the establishment of the Second Bank of the United States as a reconstruction measure. Its charter also ran for twenty years, from 1816 to 1836. After a poor start due to bad management, the Second Bank like its predecessor functioned well as a central bank, serving as the fiscal agent of the government and meeting the credit needs of business through the issue of sound notes. Again, however, political opposition arose in the West due to the conservative credit policies of the bank. Andrew Jackson, outspoken foe of the bank, was President when the question of renewing the charter of the bank came before Congress. Under the spur of his aggressive leadership the measure which would have extended the life of the bank failed to pass. From its death in 1836 to the birth of the federal reserve banking system in 1914, the United States had no institution that performed the needed functions of a central bank. It was the era of individualism in banking. Thousands of local banks, all independent of one another, were organized and operated under State, not federal, laws. The federal government after the demise of the Second Bank took no further direct part in banking until the financial exigencies of the Civil War compelled

action. Then in 1863 the national banking system was born. It was distinctly a "war baby". While the national banks were created to help provide a market for government bonds and to aid the government in any financial way possible, they were in no sense a central bank. National banks, like the state banks, were local independent banks. What the country now had, and has had ever since, was two sets of local banks, one organized under State, and the other under national, laws.⁶

On the twenty-third of December, 1913, fifty years after the creation of our national banks, to correct the palpable defects in our state and national banking organization and to give us the substance if not the form of a central bank, Congress established the federal reserve banking system. The federal reserve banks came not to destroy but to federate the thousands of local banks—national banks by compulsion, state banks by choice. The legislation came in the "nick of time," for without the federal reserve system, which was put into operation in November, 1914, it is hard to imagine how we could have financed the World War or "carried on" during the even greater financial difficulties of the post-war years. Unquestionably, the Federal Reserve Act of 1913 inaugurated a new era in our financial history.

Structural organization of the federal reserve banking system. To appreciate the ways in which the federal reserve system serves the banking needs of the country presupposes at least an elementary understanding of the structural organization of the system. The four important agencies or parts of the system are the Board of Governors, the Federal Advisory Council, the federal reserve banks, and the member banks.

The Board of Governors. The coördinating and governing body of the system as a whole is the Board of Governors of the Federal Reserve System (until August 23, 1935, known as the Federal Reserve Board), whose headquarters are in Washington. It is now composed of seven members, all appointed to the board by the President sub-

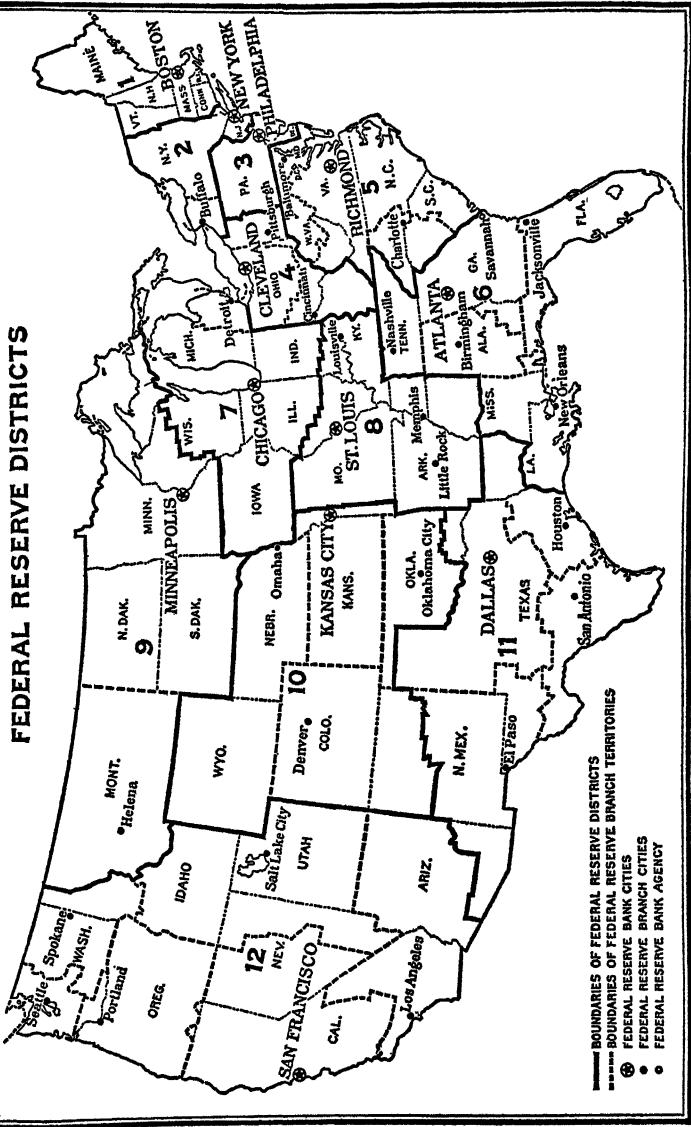
⁶ The defects of our state and national banking organizations prior to the establishment of the federal reserve system are discussed below in connection with the functions of the federal reserve banks. They include lack of any coördinated unity, inelasticity of credit, inelasticity of the currency, uneconomical use of reserves, and the periodic congestion of reserve funds in the money centers.

ject to the ratification of the Senate. Relatively long tenure of office is provided through overlapping terms of fourteen years each. One of the seven appointees of the President is designated by him as chairman to serve for four years; the chairman is the active executive head of the board. Since appointment of the governing body is by the President rather than by the banks, control of our federal reserve banking system through the office of the President rests with the people. The Board of Governors of the Federal Reserve System is the unifying agency of the system; it corrects the "lack of system" which was so glaring a defect of our banking organization prior to 1914.

The Federal Advisory Council. At the time of the establishment of the federal reserve system, the bankers had wanted a Federal Reserve Board whose members were to be selected by the banks. Congress and President Wilson insisted upon a board to be appointed by the President. While the law rejected the plan of the bankers, it did provide for an advisory body to be appointed by the federal reserve banks themselves, one member from each of the banking districts into which the country was divided. This Federal Advisory Council, which is largely composed of prominent bankers, periodically meets with the Board of Governors in Washington.

The federal reserve banks. In contrast to the single central banks of England, France, and Germany, our central banking organization is regional in character. The country has been divided into twelve federal reserve districts and a federal reserve bank established in each. It was the intention to draw the district boundaries in such a way as to observe natural lines of commercial and banking intercourse. Keen inter-city rivalry developed in some districts over the location of the federal reserve banks. Not all cities are yet willing to admit the wisdom of the choices made in designating certain cities as the financial centers of their districts. But the district numbers and federal reserve bank cities are as follows: 1, Boston; 2, New York; 3, Philadelphia; 4, Cleveland; 5, Richmond; 6, Atlanta; 7, Chicago; 8, St. Louis; 9, Minneapolis; 10, Kansas City; 11, Dallas; 12, San Francisco. The district boundaries are indicated on the accompanying map. After a few years of operation the Federal Reserve Act was amended to give federal reserve banks the power to establish

FEDERAL RESERVE DISTRICTS



- BOUNDARIES OF FEDERAL RESERVE DISTRICTS
- BOUNDARIES OF FEDERAL RESERVE BRANCH TERRITORIES
- FEDERAL RESERVE BANK CITIES
- FEDERAL RESERVE BRANCH CITIES
- FEDERAL RESERVE BANK AGENCY

branches and agencies within their own districts. Twenty-five such branches were in operation in 1935.

Each bank is a corporation and at present operates under an indeterminate charter. The capital stock of each federal reserve bank is owned by the banks of each district, known as member banks, who have joined the system. Member banks must subscribe for stock amounting to 6 per cent of their own paid-in capital and surplus, but so far only 3 per cent has actually been bought, the other 3 per cent remaining subject to future call. The First National Bank of Madison (Wisconsin) with a capital stock of \$1,500,000 and paid-in surplus of \$200,000, has subscribed for \$102,000 of the capital stock of the Federal Reserve Bank of Chicago, but its present investment is only \$51,000. Member banks are entitled to receive a cumulative annual dividend of 6 per cent on their stock "if, when and as" dividends are declared by the federal reserve banks. Any additional net earnings may now, under the Banking Act of 1933, be carried to the surplus account of the federal reserve banks. On September 30, 1935, the combined paid-in capital of the twelve federal reserve banks was \$130,653,000 and the surplus \$168,350,000.

Like every other bank, a federal reserve bank is governed by a board of directors—in this case a board of nine. The board of nine directors is divided into three classes, known as A, B, and C, of three directors each. Class A directors are usually chosen from the ranks of bankers. Class B directors represent the business interests of their district and must be actively engaged in commercial, agricultural, or industrial pursuits in their district. Class C directors represent the general public. The usual procedure in electing the directors of a bank or other corporation is for each stockholder to cast as many votes as he holds shares of stock. In the present case, however, such practice would result in the control of the board by the banks having the largest capitalization. In order to give the smaller banks fair representation the member banks of each district are divided into three groups according to their capitalization: large banks, small banks, and middle-sized banks. The banks of each group elect one Class A and one Class B director or six in all. The three Class C directors are not elected by the member banks, but are appointed to

the board by the Board of Governors. One of the three, a person of recognized banking experience, is designated as federal reserve agent and also as chairman of the board. He is the "contact man" between the Board of Governors in Washington and the particular federal reserve bank which he serves as chairman. Since two thirds of the bank's directors are chosen by the member banks, the banking interests are left in control of each federal reserve bank, although the Board of Governors has the power of removal. The board of directors selects its own president (called governor prior to the Banking Act of 1935), who is the chief executive of the bank. Some of the strongest leadership of the entire system has been supplied by certain governors, notably by the late Benjamin Strong of New York, the late W. P. G. Harding of Boston, G. L. Harrison of New York, and Roy A. Young of Boston. Both Mr. Harding and Mr. Young had been previous executive heads of the Federal Reserve Board.

The member banks. The banks in the federal reserve system that have direct relations with the banking public are the member banks. These fall into two classes: the national banks, which are members by legal compulsion, and state banks and trust companies, which may become members by choice. It would be ideal if all commercial banks were members of the federal reserve system, which is essentially a commercial banking system. Congress, however, had no direct authority over the state banks, which in number have always comprised the large majority of our banks. It could prescribe membership for the national banks but only offer membership to the state banks. If any national bank had failed to subscribe for its share of the capital stock of the federal reserve bank of its district, it would have lost its charter as a national bank. In the beginning less than a score of national banks failed to join, but in later years some withdrew and became state banks instead. State banks, to qualify for membership, must comply with certain conditions imposed upon national banks, including minimum capital requirements for cities of given size, legal reserves maintained against deposits, limitations placed on loans, and examination by the federal reserve banks. In addition to the prestige value of membership in the federal reserve system, the advantage that member banks have in borrowing from

their federal reserve banks, if occasion demands, was counted upon as a strong inducement to join for state banks doing a commercial business.

The percentage of the country's banking strength represented in the federal reserve system is evidenced by the following statistics:

NUMBER OF BANKS IN THE UNITED STATES, JUNE 30, 1934		
Member banks		6,375
National banks	5,417	
State banks	958	
Non-member banks		9,460
Mutual savings-banks ⁷	578	
Other non-member banks	8,882	
Total number of banks		15,835

Numerically, about 40 per cent of the banks of the country are members of the federal reserve system.

LOANS AND INVESTMENTS OF ALL BANKS IN THE UNITED STATES, JUNE 30, 1934
(In millions of dollars)

All banks	42,503
Member banks	27,175
Non-member banks	
Mutual savings-banks	9,904
Other non-member banks	5,425

DEPOSITS, EXCLUSIVE OF INTER-BANK DEPOSITS—ALL BANKS IN THE
UNITED STATES, JUNE 30, 1934
(In millions of dollars)

All banks	41,857
Member banks	26,615
Non-member banks	
Mutual savings-banks	9,780
Other non-member banks	5,462

Functions of member banks. In turning attention from the structural organization of the federal reserve system to its operation, it seems best to reverse the order of discussion just followed and to consider first the functions of member banks which directly serve the banking public, next the functions of the federal reserve banks for the discharge of which the whole system was created, then the

⁷ Mutual savings-banks were made eligible for membership in the federal reserve system by the Banking Act of June 16, 1933.

duties of the Federal Advisory Council, and lastly the powers of the Board of Governors.

All that has been said earlier in this chapter about the functions of commercial banks in our credit system applies to the member banks of the federal reserve system. They are essentially commercial banks. Their primary functions are the receiving of deposits and the making of loans and discounts. Loans may be made to regular customers or in the open market through the purchase of commercial paper and bankers' acceptances. Loans may be made to brokers in the call-money market. Other investments are made to help produce needed income. In their lending and discounting operations, in their buying and selling of paper and securities, in good times as well as bad, the member banks have an unfailing source of help and counsel in the federal reserve banks.

Functions of the federal reserve banks. In the score and more years of their operation, the federal reserve banks have rendered indispensable service in the custodianship of reserves, the rediscounting of commercial paper, operations in the open market, the issuance of notes, and the conduct of clearings, and in acting as fiscal agent and depository of the United States government.

Custodianship of the central reserves of the system. To provide for the most effective mobilization of the banking strength of the country, the federal reserve banks have been made the custodians of all the legal reserves against deposits of the banks in the system. Sound banking requires that banks maintain adequate reserves against their deposit liabilities. It is mandatory under the Federal Reserve Act for member banks to keep all of their legally required reserves on deposit with the federal reserve bank of the district in which they are located. It is within their own discretion to keep as much cash in their own vaults as their local demands for currency may require. Under normal business conditions a bank receives about as much currency from some depositors as it is called upon to pay out to others.

For the purpose of reserve requirements member banks are classified into three groups according to location. Those located in New York or Chicago, which are known as "central reserve cities", must maintain in the federal reserve bank of their district a reserve of

13 per cent of their demand deposits. Those located in some sixty other large cities, known as "reserve cities", must maintain a reserve of 10 per cent of their demand deposits. All member banks located elsewhere, sometimes known as "country banks", are required to maintain a reserve of 7 per cent against their demand deposits. All member banks regardless of location are legally required to keep in the federal reserve bank of their district a reserve of 3 per cent of their time deposits. The federal reserve banks are the country's reservoirs of cash reserves; this concentration of reserves makes possible their most effective use, particularly under emergency conditions.

Whenever the reserves of a member bank are running low and it becomes necessary to replenish them, two courses of action are open to the member bank: it may send cash or cash items for deposit with its federal reserve bank, or it may borrow from the latter the additional reserves that it needs. It may borrow on its own promissory note, when properly supported by collateral security, or it may borrow by rediscounting some of the commercial paper which it holds.

The reserves of member banks take the form of deposits with the federal reserve banks, against which these banks must also maintain proper reserves. The Federal Reserve Act requires federal reserve banks to maintain in gold or lawful money a reserve of 35 per cent of their deposits. Since the nationalization of gold in 1934, by which the United States treasury took custody of all gold, the federal reserve banks hold gold certificates in lieu of gold. The ultimate reserves against customers' deposits with member banks are reserves against reserves: 35 per cent of (13 or 10 or 7 or 3 per cent, as the case may be). Every dollar of demand deposits in a member bank located in either New York or Chicago, therefore, is actually supported by a reserve of 4.55 per cent in the Federal Reserve Bank of New York or Chicago. If the member bank is located in one of the large "reserve cities", its deposits are supported by an ultimate reserve with the federal reserve bank of its district of 3.5 per cent, and if it is a "country bank", of 2.45 per cent.

Rediscounting of commercial paper. One of the basic functions of the federal reserve banks is the rediscounting of commercial paper (promissory notes and bills of exchange), when endorsed and pre-

sented for rediscount by a member bank. Banks extend credit to their customers by discounting their promissory notes or other instruments of indebtedness. If the discounting bank is itself in need of funds with which to replenish its reserves against deposits or to strengthen its cash position, it may *rediscount* such paper with its federal reserve bank. The federal reserve banks provide an organized market for rediscounts of which member banks, and under emergency conditions some others, may avail themselves.⁸ If a customer wanted bank credit in the days before the federal reserve system, his ability to obtain it turned not only on his own credit standing but also on the size and location of the reserves of the individual bank with which he was doing business. In the case of the national banks federal law strictly prescribed both the amount and the location of the reserves, from 15 to 25 per cent being required, the exact amount varying with the location of the bank. In times of financial stringency it was a common occurrence that some banks had more cash in their vaults than they needed, while others had less. Fear of extraordinary demands upon them prevented banks strongly fortified with cash from freely lending to banks in need of funds. The country's banking reserves were scattered and immobile. In consequence, many perfectly sound and legitimate demands for commercial credit could not be met. We had inelasticity of credit, the inability to expand and contract loans in response to changing commercial needs. A good banking system, however, should provide elasticity of credit. This the federal reserve banks now furnish through the opportunity which member banks have of rediscounting commercial paper or discounting their own promissory notes with them.

If a member bank wishes to borrow from its federal reserve bank, the usual procedure is to present eligible commercial paper for rediscount. Within the limits of the law the Board of Governors from time to time declares what paper shall be eligible. To be eligible, paper must arise out of actual commercial transactions and be drawn

⁸ The amendment of March 23, 1933, to the Federal Reserve Act allowed federal reserve banks to lend to non-member state banks on any acceptable security. This step was an emergency measure to facilitate restoration of normal banking conditions after the "bank holiday" of February and March, 1933. It treated non-member banks with the utmost generosity. It has now lapsed.

for agricultural, industrial, or commercial purposes. Paper drawn for investment or speculative purposes is not eligible for rediscount. The object of excluding such paper is to prevent the resources of the federal reserve banks from becoming "frozen" and to provide for the steady liquidation of loans out of the business "turnover" which the borrowed funds make possible. Eligible paper includes commercial paper the maturity of which at the time of rediscount does not exceed three months, some bankers' acceptances with a maximum maturity of six months, and agricultural paper which matures within nine months. All such paper when presented for rediscount must be endorsed by the presenting bank and thus becomes "two-name" paper or better. Paper arising out of transactions involving investment in or dealing in the securities of the United States is also eligible for rediscount—it is an exception to the ban against investment paper.

If a member bank is in need of short-term funds and does not wish to rediscount any of the commercial paper in its portfolio, it has the alternative of borrowing directly from the federal reserve bank on its own promissory note with a maximum maturity of four months, secured to the satisfaction of the federal reserve bank and bearing an interest rate not less than 0.5 per cent above the current rediscount rate for eligible paper. Such extension of federal reserve credit is known as "advances" in contrast to "rediscounts".

The prevailing rate of rediscount is fixed every fourteen days by each federal reserve bank subject to the approval of the Board of Governors, although the latter may take the initiative in the matter and on one occasion has done so. Under normal conditions the spread between the customers' loan rate (say 6 per cent) and the rediscount rate (say 5 per cent) is not very great. Under the abnormal conditions of a prolonged depression the differential may become much larger. On June 1, 1934, for example, rediscount rates ranged from $1\frac{1}{2}$ per cent in New York to 3 per cent in Richmond, Atlanta, Minneapolis, Kansas City, and Dallas. At the same time the rates charged customers during June in New York City averaged 3.30 per cent, in eight other Northern and Eastern cities 4.30 per cent, and in twenty-seven Southern and Western cities 5.19 per cent.⁹ As

⁹ *Federal Reserve Bulletin*, XX (1934), 457.

a general rule, if business is fairly normal, an increase in the rediscount rate, which must be passed on to bank customers, tends to discourage additional borrowing and thus to prevent the undue expansion of loans. Similarly, under normal business conditions, a decrease in the rate of rediscount may encourage new borrowing and stimulate a desired expansion of loans. When widespread speculation runs wild, however, as it did in the movement culminating in the crash of 1929, a moderate advance in the rediscount rate does little to cool the ardor of borrowers, who are seemingly willing to pay the higher prices for borrowed funds. And when business is prostrate, even a merely nominal rediscount rate has little effect in expanding loans because confidence in the future and the will to borrow are lacking. The only way in which the rediscount rate can directly affect the market rate for customers' loans is in case the member banks must turn to the federal reserve banks for rediscounting and in turn pass the rates on to their customers.

When a member bank rediscounts eligible paper, whether notes or bills, with its federal reserve bank, it has the option of taking the proceeds of the loan in either cash or deposit credit. If the member bank is in need of cash with which to meet local needs, currency will be shipped. If in need of building up its reserves with the federal reserve bank it will ask for and receive deposit credit.

Under an amendment to the Federal Reserve Act enacted June 19, 1934, federal reserve banks may make direct loans to established industrial and commercial businesses for the purpose of supplying them with working capital. The loans so authorized are of a type which the ordinary commercial bank found it difficult to make under the unusual conditions of 1934.

Engaging in open market operations. Federal reserve banks cannot only rediscount commercial paper when offered by member banks and make direct advances to them, but they can also buy and sell certain obligations and securities in the open market. An "open" market is free to anyone who wishes to buy or sell, in contrast to markets which are restricted to their members. When federal reserve banks buy obligations and securities in the open market they are supplying the market with funds and thus helping to ease the money market. On the contrary, when they sell obligations and securities in

the open market they are withdrawing funds from the market and thus helping to tighten the money market.

The character of the paper in which the federal reserve banks can deal is prescribed by law and regulated by the Board of Governors. It includes securities of the United States government, bankers' bills or acceptances, trade acceptances, the short-term obligations of State and local governments collectively known as "municipal warrants", and the acceptances or debentures of the federal intermediate credit banks and of national agricultural credit corporations. By far the largest purchases of the federal reserve banks have consisted of United States government securities, with bankers' acceptances ranking next. While the federal reserve banks can deal in trade acceptances, they are not authorized to buy promissory notes in the open market, although of course they can rediscount them when endorsed by member banks. The earning assets of a federal reserve bank consist principally of rediscounts and advances to member banks and of investments in the open market.

In the conduct of their open market operations the federal reserve banks act through a Federal Open Market Committee which now consists of the seven members of the Board of Governors of the Federal Reserve System and of five representatives of the federal reserve banks. The representatives of the banks are elected annually by the boards of directors of the banks grouped into regions for the purpose. The committee has actual charge of the open market operations of all the federal reserve banks. "No federal reserve bank shall engage or decline to engage in open market operations except in accordance with the direction of and regulations adopted by the Committee. . . . The time, character, and volume of all purchases and sales of paper eligible for open market operations shall be governed with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country." ¹⁰

The open market operations of the federal reserve banks are a necessary supplement to their rediscounting functions, if these banks are expected to exercise any effective influence upon the rates of

¹⁰ Banking Act of 1935, Section 205.

the money market. In rediscounting, the initiative is taken by the member banks. If they do not find it necessary to rediscount, the rates of rediscount, whether high or low, will not have any direct effect upon the market because they will not be passed on in higher or lower rates to borrowing customers. In open market operations, however, the federal reserve banks themselves take the initiative. If in the judgment of the federal reserve authorities credit should be eased and borrowing by the public stimulated, the banks may buy commercial paper and securities in the open market. Those that sell, including banks, at prices that prove attractive then have funds and the federal reserve banks have added to their own investments in paper and securities. Supplying the market with funds has a tendency to lower interest and discount rates and to encourage borrowing. If it seems wise to restrict credit because expansion is occurring too rapidly, the federal reserve banks may sell acceptances and securities. By so doing they are taking available funds out of the market, which has an ultimate tendency to raise interest and discount rates. Lowering the rediscount rates and buying paper and securities in the open market are the principal devices at the disposal of the federal reserve banks for making credit easier and more plentiful. Raising the rediscount rate and selling paper and securities are the corresponding means for restricting credit. Open market operations are more or less continuous; rediscount rates are usually changed only at long intervals. Open market operations may be used to prepare the way for changes in the rediscount rates. Changes in the rediscount rate are designed to affect the price of credit directly, while open market operations are designed to affect the supply of credit and thus indirectly to influence its price. The effectiveness of open market operations and changes in the rediscount rates in controlling credit, while of real importance, is also distinctly limited. There is no unlimited supply of either funds or securities with which to operate. At times a high rediscount rate is not a deterrent, and at other times a low rate is not a stimulant, to borrowing. There are numerous markets for funds outside the immediate influence of the central money markets.

The amount of and changes in the volume of federal reserve bank

credit in use together with certain related monetary items are published weekly, usually appearing in the Friday editions of leading newspapers. The following is a sample.

CHANGES IN THE AMOUNT OF RESERVE BANK CREDIT OUTSTANDING AND IN RELATED ITEMS, DURING THE WEEK AND THE YEAR ENDED NOVEMBER 13, 1935 (IN MILLIONS OF DOLLARS)

	Nov. 13, 1935	<i>Increase or Decrease since</i>	
		Nov. 6, 1935	Nov. 14, 1934
Bills discounted	9	+ 2	- 16
Bills bought	5	..	- 1
U.S. government securities	2,430	..	..
Industrial advances (not including 27 million commitments, Nov. 13)	33	..	+ 25
Other Reserve bank credit	16	+28	+ 10
Total Reserve bank credit	2,492	+30	+ 18
Monetary gold stock	9,747	+33	+ 1,717
Treasury & nat'l bank currency	2,399	- 2	- 51
Money in circulation	5,746	- 8	+ 266
Member bank reserve balances	5,746	+75	+ 1,639
Treasury cash and deposits with Federal Re- serve banks	2,641	-14	- 323
Non-member deposits and other Federal Re- serve accounts	506	+10	+ 103

The issuance of notes. In addition to an uneconomical use of reserves and inelasticity of credit, our banking organization prior to 1914 had the glaring defect of inelasticity in our currency. Like credit, currency is inelastic when it cannot readily be expanded or contracted in response to changing needs. There was not a single elastic element in our currency prior to the establishment of the federal reserve banking system. Of the principal paper elements in our currency gold and silver certificates merely did proxy duty for equivalent amounts of gold and silver in the United States treasury, the volume of the United States notes depended upon an act of Congress and had stood unchanged at \$346,681,016 since 1878, and the volume of national bank-notes turned on the available amount and price of the United States bonds required as collateral. The federal reserve system now provides elasticity of currency in the form of federal reserve notes, which constitute the largest single element

in our currency, accounting for more than one half. Although federal reserve notes are described in the original Federal Reserve Act of 1913 as "obligations of the United States government", practically as regards issue and supporting security they resemble bank-notes—asset currency issued by the several federal reserve banks.

To facilitate issue of the federal reserve notes when they are needed, a supply of these notes (which are printed by the Bureau of Engraving and Printing in Washington) is constantly kept available in the treasury and mints of the United States. The procedure of issuing federal reserve notes consists in the application of a federal reserve bank to its federal reserve agent (the chairman of its board and the special representative in the bank of the Board of Governors) for whatever amount of such currency it needs. It lies within the discretion of the Board of Governors to approve or refuse the application, in whole or in part, and if desirable to impose an interest charge upon the notes so issued. No interest charge, however, has so far been imposed.

The security behind the federal reserve notes accounts for their unquestioned safety. In the first place they are supported dollar for dollar by eligible collateral, 60 per cent of which may be prime commercial paper and 40 per cent of which must be gold (gold certificates since the nationalization of gold in 1934). All such collateral is placed in the custody of the federal reserve agent. As the commercial paper matures it may be withdrawn and replaced by equally good paper approved by the Board of Governors. In the second place, federal reserve notes constitute a first and paramount lien on all the assets of the issuing bank. Finally, since the notes are issued in the name of the United States government they carry the implicit guaranty of payment by the government. Such warranty, however, is subordinate to the primary obligation of the federal reserve banks themselves, and there has never been any doubt about their ability to make good their notes.

As a result of the steady inflow of gold to this country during and after the World War, the gold supplies of the banks were largely increased. Through an amendment of the Federal Reserve Act, approved June 21, 1917, the federal reserve banks received permission to issue federal reserve notes against either commercial paper

or gold, without however affecting the required minimum of 40 per cent gold. With the coöperation of member banks gold accumulated in the federal reserve banks. Much of it was later used as a substitute for the commercial paper backing of federal reserve notes, which had the effect of practically making the notes gold certificates. This seemed like a radical departure from the original purpose of the Federal Reserve Act of supplying the country with an elastic currency based upon sound and highly liquid commercial paper. It was a defensible policy during times of slack demand for currency. When business was active and commercial paper abundant, federal reserve notes could readily be based upon larger volumes of commercial paper.

The scarcity of commercial paper during the depression of the thirties led to another, although presumably temporary, modification of the permissible security supporting federal reserve notes. The notes were heavily supported by gold due to the lack of sufficient eligible paper. At the same time there was an extraordinary demand for gold due to foreign withdrawals of gold held in the United States and to domestic hoarding. To increase the amount of "free gold" in this country—that is, gold not required as a reserve for deposits and notes—the Glass-Steagall Act was passed February 27, 1932. This permitted federal reserve banks with the approval of the Federal Reserve Board to substitute United States bonds for commercial paper as all or part of the 60 per cent non-gold security for federal reserve notes. Although originally granted as an emergency power limited to one year, the right has been extended and at this time (1935) is still in force.

If a currency is to be truly elastic it must be able to contract as well as expand in response to changing business needs. A currency that only expands and does not contract would be most unsatisfactory. Certain provisions of the law and banking practices based upon them ensure retirement of the notes when the business demand for additional currency has subsided. As the commercial paper upon which these notes may be based matures, and as the volume of new commercial paper offered for discount and rediscount shrinks with a decline in the activity of business, member banks are apt to return notes that have been deposited with them to the federal reserve

banks to apply on their rediscounted loans and in turn to be retired from circulation by the reserve banks. Note contraction is aided by the fact that neither member banks nor reserve banks may count federal reserve notes in their legal reserves. In addition every federal reserve bank is prohibited from putting back into circulation the notes of any other federal reserve bank which it receives in the ordinary course of business, a penalty of 10 per cent per annum of the face of the notes being imposed for any possible infraction. It is the intention of the law that the notes be returned to the bank of issue as promptly as possible when they are no longer needed.

Although hoarding and the substitution of gold and government bonds in the supporting security have rendered the notes less elastic than they would be under normal business conditions, the provisions for both expansion and contraction of the note issues make the federal reserve notes the only elastic element in our currency, and the only one the United States has ever had.

For certain special reasons, including emergency conditions, federal reserve banks have the power to issue still another form of currency—the federal reserve *bank*-notes. These are the direct and exclusive promises to pay of the federal reserve banks themselves. The original reason for authorizing them was to provide a substitute currency for national bank-notes, the possible retirement of which had been anticipated in the Federal Reserve Act. At the time when the Federal Reserve Act was enacted, it was thought that national banks might wish to give up their inelastic bond-secured note issues. Nothing in the act compelled them to do so or prevented them from issuing additional notes in the future. To facilitate retirement of the national bank-notes the act provided that the federal reserve banks might purchase in any one year a maximum of \$25,000,000 worth of the bonds held by national banks as support for their notes and then issue their own federal reserve bank-notes against such bonds. The national banks, however, did not see fit to give up their circulating notes, and they remained in circulation until 1935 when the circulation privilege was in effect withdrawn. In this respect the proposed use of federal reserve bank-notes proved negligible. Considerable use, however, was made of them during the World War. Congress in 1918 passed the Pittman Act, which

authorized the temporary withdrawal of silver certificates from circulation and the melting and sale as silver bullion of silver dollars in the amount of \$350,000,000. The silver was sold to Great Britain to settle adverse balances with the Orient and helped to conserve the use of gold. In place of the silver certificates so withdrawn, federal reserve bank-notes were issued, secured by short-term obligations of the United States government. These in turn were later withdrawn when the treasury repurchased silver and issued certificates against it. The federal reserve bank-notes functioned as "pinch hitters" to keep up the volume of our currency. Again in the banking crisis of 1933 federal reserve bank-notes were requisitioned for emergency service. When through waning confidence in the banks depositors attempted to convert a large percentage of more than forty billions of dollars of deposits into cash, the total volume of which did not much exceed seven billions, our banking system broke down. Beginning with an eight-day State-wide "bank holiday" proclaimed by the Governor of Michigan effective February 14, 1933, ultimately through presidential proclamation on March 6 all banks in the country were temporarily closed. A special session of the newly elected Congress passed the Emergency Bank Act of 1933 on March 9. Among other things this provided for the easier issue of federal reserve bank-notes in order to supply currency for an extraordinary situation. Paper and securities, some of which were not eligible as backing for federal reserve notes, were made acceptable as security for federal reserve bank-notes. This enabled the federal reserve banks to supply the banks of the country with currency on the basis of almost any sound assets. What is more, there is no gold reserve behind the federal reserve bank-notes, which puts them in sharp contrast to the federal reserve notes with their mandatory 40 per cent gold reserve. While the federal reserve bank-notes proved most useful during the banking emergency, no such extensive use of them was made as at one time seemed probable because confidence in the banks and the "deposit dollar" was soon restored. Their career has been and is that of emergency currency.

Conducting clearings. A function of federal reserve banks that is of great practical importance to individual depositors is the nationwide clearance of checks which these banks conduct. When an indi-

vidual depositor draws a check upon his bank, the recipient may deposit it in the same bank, in another bank of the same city, or in an out-of-town bank. If the check is deposited in the bank on which it is drawn, the transaction is simple: the account of the maker is debited and the account of the payee is credited, unless the amount of the check is paid him in cash. If the check is deposited in another bank of the same city, it must be "cleared". The receiving bank may present the check for payment, along with others it has taken in during the day's business, to the bank upon which it is drawn. If the banks are located in a city of some size, the chances are that the transaction will be handled through a clearing-house. Every day a representative of each of the banks that are members of the clearing-house association will bring to the place of meeting all checks, drawn against other banks in the association, received since the last clearing by his bank. The total claims and obligations of each bank to the clearing-house can thus readily be ascertained, and only the net amounts payable to or receivable from the clearing-house need be settled in cash or in some other way acceptable to the banks in the association.

If the check drawn by a depositor against his bank is deposited in an out-of-town bank, the chances are that the federal reserve banking system will be the agency through which it is cleared. What the clearing-house does for the banks of a city each federal reserve bank does for the banks of its district. It functions as a clearing-house not only for member banks but also for qualified non-member banks. The latter, known as non-member clearing banks, exceed the former. If the First National Bank of Chicago, for example, receives on deposit checks drawn on banks in Detroit, Indianapolis, Milwaukee, and Des Moines—all located in the seventh federal reserve district—it will send them to the Federal Reserve Bank of Chicago for collection. Banks in these other cities will do the same with the out-of-town checks which they receive, though they may act through a correspondent bank. The federal reserve banks, by debiting the accounts of banks on which the checks are drawn and crediting the accounts of banks presenting them for payment, clear the checks without the use of any currency for the settlement of adverse balances. To participate in the reserve bank clearance system non-member clearing

banks maintain deposits with the federal reserve banks and agree to pay at par, without any fee for remittances, all checks drawn upon them. Member banks are legally required to remit at par. Approximately 85 per cent of the country's banks doing a checking business are on the federal reserve par collection list.

Clearings between the twelve different federal reserve banks are made through a special device known as the "gold settlement fund". Even prior to the time when all gold stocks were nationalized and requisitioned for deposit in the United States treasury, each federal reserve bank had carried part of its gold funds in a "gold settlement fund" which was kept in the United States treasury but subject to the control of the Federal Reserve Board. This was for the purpose of settling adverse clearing balances among the twelve federal reserve banks. Settlements continue to be made in this way, the only change being that the federal reserve banks now own gold certificates instead of the gold itself. Every day each of the federal reserve banks wires the Board of Governors in Washington the amount of its claims against each of the other federal reserve banks including chiefly the checks and drafts it has received for collection drawn against banks in other districts. If the obligations of the Federal Reserve Bank of Chicago to the Federal Reserve Bank of New York, for example, exceed the obligations of the latter to the former, it is a simple matter for the Board of Governors to debit the account of the Federal Reserve Bank of Chicago for the difference on the books of the "gold settlement fund" and to credit the account of the Federal Reserve Bank of New York. The equity of the latter in the fund has been increased at the expense of the former. Some idea of the magnitude of the clearing operations through this fund may be gathered from the fact that in 1929 the volume of clearances exceeded \$145,000,000,000.

The economy and convenience of such a nation-wide system of clearings is self-evident. It has largely eliminated the wasteful shipments of currency among banks and has led to great economies in the use of gold. It would be highly desirable if all banks doing a demand deposit business were at least members of the federal reserve check clearing and collection system so that the country's check transactions, which are not settled locally, could be cleared through the

marvelously efficient mechanism of the "gold settlement fund".

Acting as fiscal agent and depository for the government. Federal reserve banks function not only as "bankers' banks" but also as banks for the United States government. The federal reserve banks do a deposit and checking account business with the federal government which does not differ in any essential respect from the business an ordinary bank does with an individual or corporate depositor. Governmental revenues may be deposited in, and checks drawn against, the federal reserve banks. The Independent Treasury System, through which the government had sought to handle its own receipts and disbursements independently of the banks and which it had maintained for approximately seventy-five years, was finally abolished in 1920. It was unnecessary with the federal reserve banks in successful operation. During the World War the various government bond issues were all issued through the reserve banks and interest coupons paid by them. It is difficult to imagine how the large-scale financing of the government during both the war and the post-war period could possibly have been carried on if we had not had the federal reserve banking system. This financing has led to close coöperation between the United States treasury and the reserve banks—coöperation which at times, in the opinion of some critics, has closely resembled domination by the treasury.

Duties of the Federal Advisory Council. The Federal Advisory Council—the third structural unit in the federal reserve banking system—is composed of twelve members, one appointed by each of the reserve banks, who usually select prominent bankers to represent their districts. The duties of the council, as suggested by its name, are purely advisory. The law provides that it shall meet in Washington at least four times each year, and may be called oftener by the Board of Governors. It may confer with, call for information from, and make recommendations to the Board of Governors. The real power of the council depends on whatever influence it can exert upon the board. It is a useful agency in bringing to the board the points of view and judgments of the bankers of the country. At various times some of the most prominent bankers of the country have served on the council, including J. P. Morgan of New York and J. B. Forgan and Melvin Traylor of Chicago.

Powers of the Board of Governors. The Board of Governors, which is the head of our banking system, functions in general in a supervisory and coördinating capacity. Its function is not to operate the reserve banks and their branches, which is the duty of their own respective boards and officers, but to supervise and integrate their operations. Unified control by the board provides the system which was lacking in our banking organization prior to 1914.

Among the more important specific powers of the board is the power of examination. Certainly most readers of this book do not need to be told that anyone who has the power to examine has far-reaching powers indeed. The board may examine federal reserve banks and also member banks. It may require the reserve banks to write off doubtful assets. It publishes a weekly consolidated statement of the condition of the federal reserve banks. In the second place, upon the affirmative vote of at least four of its seven members, in order to prevent injurious credit expansion or contraction, the board may change the reserve requirements to be maintained by member banks against their time or demand deposits. The board may not reduce the present reserve requirements of 3, 7, 10, or 13 per cent, but may raise them to a maximum of twice the present amounts. Third, the board has the power to permit or to require reserve banks to rediscount the discounted paper of other reserve banks. Through the exercise of this power the funds of the twelve federal reserve banks are practically consolidated into a single fund and the utmost possible use of it made. Such borrowing has taken place during times of both prosperity and depression, notably in 1920 and again in 1933. In the latter year it was chiefly motivated by the desire to convert assets into cash in order to meet the extraordinary demands of frightened depositors. Fourth, and perhaps most important of all, the board determines what classes of commercial paper shall be eligible for rediscount and has ultimate control over the rediscount rates. Discount rates must be established by the reserve banks for their own districts every fourteen days (oftener if required by the board) but are subject to the approval or disapproval of the board. Although the board itself has power to initiate a change in rates, such power has rarely been exercised. Fifth, supervision of open market operations rests with the board, and no federal

reserve bank can engage in such operations except in accordance with regulations adopted by the board. "The time, character and volume of all purchases and sales of paper in the open market shall be governed with a view to accommodating commerce and business and with regard to their bearing upon the general credit situation of the country."¹¹ Finally the board supervises both the issue and the retirement of the principal element in our currency, the federal reserve notes.

Service of the federal reserve system. The federal reserve system has only recently passed its majority. Its activities during the past score of years have proved invaluable to both American business and the American government. During the early years of its life its outstanding service was to the government in providing the centralized banking organization through which billions of dollars' worth of government securities could be taken by the banks and gradually absorbed by the investing public. Federal reserve credit was heavily extended for the purpose. It is difficult to imagine how the United States could have functioned as the Allied nations' banker and itself participated effectively in the World War without the federal reserve system. The service of the system to the government has been almost equally indispensable in financing the enormous expenditures involved in fighting the present depression.

To American business and commercial banking it has given centralized reservoirs of cash reserves, which make possible their most effective use; rediscounts and open market operations, which provide desirable elasticity in commercial credit; a flexible currency through the use of federal reserve notes; and an economical nationwide system of clearings. Tested by the commercial and governmental services it has rendered, as well as by the ordinary material criteria of assets and necessary earnings, the federal reserve system has proved a highly successful venture in banking.

But the system is not a finished product. New banking problems have arisen, and new demands are being made upon it. How to establish its leadership in the discount market and to carry on open market operations so to affect the supply of credit as to help business remain more stable is one of the most perplexing problems that

¹¹ The Banking Act of 1933, Section 8; the Banking Act of 1935, Section 205.

remains unsolved. The mandatory use of the facilities and powers of the system in an attempt, which many critics think would prove futile, to control the price level is one of the most controversial issues of the day. How to induce thousands of state commercial banks still outside the system to become member banks and so to help make central banking policies more effective is still another troublesome problem. How to prevent the intrusion of partisan politics and how constantly to attract strong, able men to the system are perennial problems upon the solution of which the efficiency of the system largely depends.

FEDERAL DEPOSIT INSURANCE CORPORATION

One important by-product of the banking crisis of 1933, in which for a few days at least every bank in the country was closed due to the demand of frightened depositors for their money, was an irresistible political movement looking to the "insurance" of bank deposits. This took temporary legislative form in certain provisions of the Banking Act of 1933 and was made permanent in the Banking Act of 1935. The Act of 1933 created the Federal Deposit Insurance Corporation for the purpose of insuring bank deposits.

The management of the corporation is provided by a board of three directors, including the Comptroller of the Currency and two other members appointed by the President subject to the approval of the Senate. One of these appointive members is designated as chairman. The term of office is six years. Not more than two of the members of the board may belong to the same political party.

The capital stock of the Federal Deposit Insurance Corporation, as now constituted, has all been subscribed by the United States treasury and by the federal reserve banks. The United States government subscribed for \$150,000,000 through a direct appropriation. The federal reserve banks were required by law to contribute one half of their surplus as of January 1, 1933, to the capital of the corporation. The amount so subscribed amounted to \$139,299,566.99. As a partial offset to the loss of 50 per cent of their surplus, federal reserve banks were relieved of the legal obligation of paying the major part of their future surplus earnings, if any, to the govern-

ment as a franchise tax. No dividends are payable on the stock. The Secretary of the Treasury, moreover, is authorized and directed to buy obligations of the corporation amounting to \$250,000,000 more, if in the judgment of the board of directors of the corporation such additional funds are needed for insurance.

The insurance of deposits was made mandatory for members of the federal reserve system and optional for sound non-member banks. The latter may participate in the insurance plan until July 1, 1942, after which they must join the federal reserve banking system in order to be eligible for the insurance of their deposits, if such average deposits amount to \$1,000,000 or more.

Insured banks are required to pay an annual assessment of 0.085 per cent upon their average deposit liability. The payment of such annual assessments, it is expected, will provide the principal insurance fund out of which losses can be paid as they arise. Funds of the corporation must be invested in obligations of the United States or those guaranteed by the United States.

Deposits in insured banks are fully protected up to \$5,000 for each depositor. In 1934 this offered 100 per cent insurance coverage to 98.5 per cent of all the depositors in the insured banks of the country.

In the event of the failure of an insured bank, the Federal Deposit Insurance Corporation serves as receiver, if the bank is a national bank, and will also serve as receiver for a failed state bank, if State law and authorities permit. In the liquidation of the bank that has failed the corporation at once sets up a new national bank which can do a limited business, consisting principally in receiving and paying out deposits. The insurance due depositors is paid to this new bank and placed to their credit. Thus they are subject to the least possible inconvenience, and if the failed bank was an isolated institution the community likewise is not deprived of all banking facilities. The final decision in regard to the permanency of the new bank depends upon local banking conditions.

The Federal Deposit Insurance Corporation in reality sets up a coöperative system for the limited guaranty of bank deposits. The guaranty is furnished by the banks themselves and not by the government, except for the initial subscription of the government to the capital stock.

The plan of guaranteeing bank deposits is not new in our banking history. After the financial panic of 1907 eight States experimented with various plans of guaranteeing deposits.¹² By 1931 the last of these State plans had been abandoned. Their failure was largely attributable to the lack of diversification of risk, since the States guaranteeing bank deposits were predominantly agricultural in their economic life; to the fact that unsound banks were taken into the State guaranty systems; and to bad management in the making of loans and investments. While the results of the State experiments of course are not conclusive as far as the federal system is concerned, they are discouraging and reveal certain obvious dangers which must be avoided if the federal plan is to succeed.

The federal plan of insuring bank deposits was the aftermath of the "bank holiday" of February–March, 1933, as a result of which public confidence in the banks was severely shaken. Its ultimate success will depend upon the admission of none but strong banks to the system, sound banking practices in the making of loans and investments, and adequate and thorough examinations by the federal authorities. The real test of the system will come in the next economic crisis.

¹² Kansas, Mississippi, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, and Washington.

CHAPTER XIV

INTERNATIONAL TRADE AND EXCHANGE

SIGNIFICANCE OF FOREIGN TRADE TO THE UNITED STATES

Of all nations the United States, by virtue of its three million square miles of territory of unsurpassed diversity and richness and its large population of 125 millions efficient as producers and constituting the prize market of the world, could, had it chosen to do so, live a self-contained economic life more easily than any other nation. To have done so, however, would have meant to sacrifice the full advantages of specialization in production and to be content with a much lower standard of living. Except under the most primitive conditions no individual, community, or nation is really self-sufficient. Indeed the higher the standards of living and the greater the prosperity of all, the greater is their economic interdependence. Like every other people we have chosen to specialize in production and to create huge surpluses beyond our domestic ability to consume and accordingly have made ourselves dependent upon the rest of the world for markets. The development of modern methods of rapid communication and transportation has extended and intensified this drift toward productive specialization and trade. The nations of the world have wisely chosen to specialize in production and to exchange their surplus products, because such coöperation in production and trade makes possible a higher standard of living for all. But they have not been equally wise in the logic by which they have shaped their tariff policies, for tariffs are designed to hinder rather than to promote international trade.

Although our foreign trade represents only about 10 per cent of the total volume of our trade, its significance to our economic life is very much greater than this percentage indicates. In the days of our prosperity about one half of our cotton, one fifth of our wheat, and one third of our tobacco and pork products were exported. These

exports helped to maintain our domestic prices at a profitable level and gave our cotton, wheat, tobacco, and pork producers the buying power needed to support the demand for manufactured goods. Similarly, prior to the depression of the thirties we were exporting substantial percentages of certain types of American manufactures, such as two fifths of our typewriters, one third of our kerosene and lubricating oil, one fourth of our printing and agricultural machinery, one fifth of our locomotives, one sixth of our cash registers, and one tenth of our automobiles. The percentage of the output of an industry that is exported has a highly disproportionate effect upon the domestic prices of its products and the profits of the industry. The exported surplus prevents a glut in the home market and may spell the difference between operating at a profit or a loss. Indirectly both agricultural and manufacturing exports affect most of the rest of our economic life, because, in these days of the interdependence of all economic activities, major increases or decreases in the buying power of those engaged in agriculture and manufacturing are bound to stimulate or depress business as a whole.

Any nation that expects regularly to sell its surplus products abroad must be willing to buy commodities and services from foreign countries in exchange. Such an advantageous exchange of exports and imports makes possible a higher standard of living for the trading nations. The United States, for example, buys its entire supply of coffee and tea abroad. As a supplement to its own production of both beet- and cane-sugar it imports enormous supplies of cane-sugar, since the American people have the highest per capita consumption of sugar in the world. Fruits and spices, nuts and vegetable oils from tropical lands lend variety to the American table. Long-staple cotton from Egypt, fine wool from Australia, and silk from China and Japan add much to the quality of American clothing. The country imports all its rubber and a large part of its paper and materials for the manufacture of paper products.

Some idea of the growth and decline in the foreign commerce of the United States may be gathered from the following table showing the value of the merchandise exports and imports of the United States since 1900. To be properly comparable, of course, such figures should be corrected for changes that have taken place in the general

level of prices by reducing them all to a common base such as prices obtaining in 1913 or 1926, which are now commonly taken as standard years of comparison. The high figures for 1920, for example, are partly accounted for by the fact that prices were more than twice as high as they had been a decade earlier.

MERCHANDISE EXPORTS AND IMPORTS OF THE UNITED STATES ¹
(In thousands of dollars)

	<i>Exports</i>	<i>Imports</i>
1900	1,394,483	849,941
1905	1,518,562	1,117,513
1910	1,744,985	1,556,947
1915	2,768,589	1,674,170
1920	8,228,016	5,278,481
1925	4,909,848	4,226,589
1926	4,808,660	4,430,888
1927	4,865,375	4,184,742
1928	5,128,356	4,091,444
1929	5,240,995	4,399,361
1930	3,843,181	3,060,908
1931	2,424,289	2,090,635
1932	1,611,016	1,332,774
1933	1,674,994	1,449,559
1934	2,133,366	1,655,049

The changing composition of the foreign trade of the United States is indicated by the following table which shows the percentage distribution of the exports and imports, for selected years, classified into the major commodity groups.

PERCENTAGE DISTRIBUTION OF EXPORTS AND IMPORTS OF MERCHANDISE, BY ECONOMIC CLASSES ²

<i>Commodity Groups</i>	<i>Per Cent of Total Exports</i>				
	1900	1910	1920	1930	1934
Crude materials	24.81	33.57	23.30	21.93	31.1
Crude foodstuffs	16.48	6.42	11.36	4.72	2.8
Manufactured foodstuffs	23.32	15.16	13.82	9.59	8.0
Semi-manufactures	11.18	15.66	11.86	13.56	16.3
Finished manufactures	24.20	29.19	39.66	50.20	41.8

¹ *Statistical Abstract of the United States*, 1934, p. 406. Data for 1934 taken from *Monthly Summary of Foreign Commerce of the United States*, January, 1935, p. 3.

² *Statistical Abstract of the United States*, 1934, p. 411. Data for 1934 taken from *Monthly Summary of Foreign Commerce of the United States*, December, 1934, p. 32.

352 INTERNATIONAL TRADE AND EXCHANGE

<i>Commodity Groups</i>	<i>Per Cent of Total Imports</i>				
	1900	1910	1920	1930	1934
Crude materials	33.14	37.11	33.79	32.74	28.2
Crude foodstuffs	11.52	9.30	10.94	13.07	15.0
Manufactured foodstuffs	15.65	11.66	23.46	9.59	16.6
Semi-manufactures	15.79	18.31	15.20	19.87	18.8
Finished manufactures	23.90	23.62	16.61	24.73	21.4

One striking fact brought out by the preceding table is the relative decline in importance of our agricultural exports and the steady increase in our exports of finished manufactured goods. With the growth in the American population a larger percentage of the country's agricultural products was consumed at home, and with the urbanization of the population the volume of exportable manufactures grew. The relative importance of agricultural exports and imports in the total volume of American exports and imports for selected years is set forth in the following table.

IMPORTANCE OF AGRICULTURAL PRODUCTS BY PERCENTAGES IN THE TOTAL
EXPORTS AND IMPORTS OF THE UNITED STATES ³

<i>Yearly Average or Year Ended June 30</i>	<i>Per Cent Agricultural Exports of All Exports</i>	<i>Per Cent Agricultural Imports of All Imports</i>
1857-1861	81.1	38.5
1877-1881	80.4	51.8
1897-1901	65.9	53.9
1907-1911	53.9	50.4
1917-1921	42.7	61.5
1927-1931	35.9	51.2
1930	32.4	49.1
1931	34.2	47.8
1932	39.4	48.2
1933 (prelim.)	41.6	52.4

BASIS AND ADVANTAGES OF INTERNATIONAL TRADE

Trade whether domestic or international is of reciprocal advantage. Trade is not a transaction in which one party gains and the other party loses, but a transaction in which both parties gain, because each gives what he wants less for something that he wants more. Trade makes specialization in production both possible and profitable. If maximum productivity is to be achieved, not only

³ *Statistical Abstract of the United States*, 1934, p. 574.

individuals and communities but nations must specialize in production. But without the sequel of trade such productive specialization would be futile.

Why do nations trade with one another? One obvious reason is that no nation is really self-sufficing; international trade enables it to procure goods which it cannot produce domestically and thus makes possible a more diversified standard of living. Holland has no building stone; Germany raises no silk; Switzerland has neither coal nor iron; the United States grows no coffee, tea, or rubber. Nations are eager to exchange their surplus products. Another almost irresistible reason for international trade is the opportunity of buying some goods more cheaply abroad than they can be obtained at home. If Great Britain, for example, has a distinct advantage in the production of fine woollens and the United States has marked superiority in the production of foodstuffs, the exchange of woollens and foodstuffs between these countries will be mutually advantageous and international trade will develop unless prohibitive tariff barriers are erected.

Law of comparative costs. The *raison d'être* of international trade is the law of comparative costs. A country observes the principle of comparative costs in the development of its industries if it applies its labor and capital to the production of those goods in which it has the greatest comparative advantage or the least comparative disadvantage in competition with other countries. *Prima facie* there is a strong case for the contention that countries should devote themselves to those industries in which their productive energies can be most effectively applied, provided the opportunities for trade are open. Departures from such an economic policy there are and always will be, but they must be justified on other than economic grounds.

The reasons for the superior effectiveness of countries in given industries are diverse. It may be a matter of climatic advantage. The climate of Brazil is more conducive to the growth of coffee than is that of the United States. It may be a matter of superior natural resources. The high-grade manganese iron ores of Russia and Brazil make these countries the leading exporters of manganese; the steel industry of the United States draws virtually its entire supply from

abroad. The rich natural resources of the United States enable this country to compete successfully on a cost basis for world trade in the products of the various extractive industries. Sometimes superior methods of production including up-to-date capital equipment give a country an advantage over its rivals. The long-time preëminence of Great Britain in textile manufacturing was partly due to the earlier revolutionizing of her industries through the introduction of the steam-engine and the power loom. Her early start proved a handicap to her competitors. What advantage the United States has in manufacturing is largely due to the economies of standardized mass production, such as we have in automobile manufacturing, made possible by highly efficient machine industry. Again the superior productive effectiveness of a country may be due either to cheap labor or more efficient labor. China in certain handicraft industries has an undeniable advantage in competing with other countries due to a superabundant supply of cheap labor. Her advantage is purchased, however, at the expense of the Chinese worker's standard of living. Germany long had a marked advantage in the dyestuffs and chemical industries largely on account of the great number of highly trained chemists she had developed.

For one reason or another, then, labor and capital are more effectively applied in some industries than in others, and in this fact the comparative advantage of an exporting country lies. Even though a people may be able to produce a number of commodities more cheaply than these commodities can be produced in another country, it will still pay the lower-cost country to concentrate on those commodities in which it has the greatest advantage and to import the others. This principle is sometimes difficult to understand and rarely wins the recognition it deserves in tariff policies, but it is illustrated constantly in daily life. A professional man may be an expert typist, even more proficient in all departments, including orthography and punctuation, than the stenographer he employs, but this is not a sufficient reason why he should divide his energies between his professional work and stenography.

Perhaps the principle of comparative costs in international trade can be clarified by applying it to the United States and Canada, who have long been each other's best customers and in normal times

have enjoyed much the same relatively high standard of living. Suppose for the sake of simplicity that we consider only two commodities, steel and newsprint paper, both of which can be produced in the two countries. Let us further assume that prices are controlled by costs and that the costs are measured and expressed in a common unit. Suppose that a ton of newsprint and a ton of steel can be produced in the United States and Canada with the expenditure of the following unit costs.

	<i>Ton of Newsprint</i>	<i>Ton of Steel</i>
Unit costs in United States	60	30
Unit costs in Canada	50	40

Under these conditions it is apparent that it costs the United States six-fifths as much to produce a ton of newsprint as it does Canada and only three-fourths as much to produce a ton of steel. On the other hand it costs Canada only five-sixths as much to produce a ton of newsprint as it does the United States and four-thirds as much to produce a ton of steel. It will therefore pay the United States to specialize in the production of steel, importing her newsprint from Canada; and it will be to the advantage of Canada to specialize in the production of newsprint, importing her steel from the United States. Of course this is upon the assumption that transportation costs and trade barriers are not prohibitive and that there is a ready market in the two countries for the steel and newsprint they regularly produce. It is obvious, if prices follow costs, that in the United States 1 ton of newsprint will tend to sell for as much as 2 tons of steel, while in Canada 1 ton of newsprint will command only as much as $1\frac{1}{4}$ tons of steel. Canada can afford to trade 1 ton of newsprint for American steel provided she can get more than $1\frac{1}{4}$ tons of steel for it. The United States, on the other hand, can afford to pay up to 2 tons of steel for 1 ton of newsprint, because in terms of steel it would cost her that much to produce a ton of newsprint. The exchange of Canadian newsprint for American steel at a price in excess of $1\frac{1}{4}$ tons of steel and less than 2 tons of steel would be mutually advantageous.

The case just discussed presents an international trade situation in which the absolute cost of producing newsprint was lower in

Canada than in the United States, and the absolute cost of producing steel was lower in the United States than in Canada. Let us now suppose that the absolute costs are both lower in the United States than in Canada as shown below. Is trade still mutually advantageous?

	<i>Ton of Newsprint</i>	<i>Ton of Steel</i>
Unit costs in United States	45	30
Unit costs in Canada	50	40

Under these changed circumstances it now costs the United States nine-tenths as much to produce a ton of newsprint as it does Canada, and three-fourths as much to produce a ton of steel, while the converse ratios hold for Canada. The United States still has the greater relative or comparative advantage in the production of steel, and Canada suffers the lesser comparative disadvantage in the production of newsprint. In the United States 1 ton of steel will now tend to equal in price $\frac{2}{3}$ ton of newsprint (as contrasted with $\frac{1}{2}$ in the previous case) and in Canada 1 ton of steel still tends to be worth as much as $\frac{4}{5}$ ton of newsprint. The United States can best afford to trade steel for newsprint as long as she can procure more than $\frac{2}{3}$ ton of newsprint for 1 ton of steel, while Canada on the other hand can afford to pay up to $\frac{4}{5}$ ton of newsprint. Although the United States has an absolute advantage in the production of both steel and newsprint, her comparative advantage over Canada is greater in the production of steel than of newsprint, and so it is more profitable to export the steel and import the newsprint. Canada's disadvantage is less in newsprint production than in steel, and so if the situation be confined to these two industries, she would produce the newsprint to supply her own needs and to pay for her steel imports.

The foregoing illustrations, hypothetical as to figures but dealing with two of the important export industries of the United States and Canada, have been severely simplified to show the working of the law of comparative costs or advantages in international trade. Newsprint paper and paper materials do constitute one of our leading imports, and Canada is the chief source of the supply. American iron and steel products are exported to Canada more largely than to any other country. Actual trade relations constantly show the

working of the principle of comparative costs even though its application is greatly hampered and restricted. In their internal economies nations unhesitatingly apportion their productive energies in reasonable accordance with the principle; communities specialize in the production of whatever they can produce most profitably and buy wherever they can buy most advantageously. But in international economic life there is not the same freedom. Nations are loath to apply the principle consistently for fear that they may become too dependent upon the industries of other countries, which might weaken them in the event of war. They feel safer also in developing as diversified a domestic economic life as possible because sudden and sweeping changes in tariff policies may ruin the markets for their highly specialized industries. The outburst of extreme nationalism in the post-war period has played havoc with international trade, yet no nation with a highly developed economic life can dispense with it. World trade is the blood-stream of international economic life. It carries enriching nourishment to the uttermost parts of the earth, making possible a healthy life. If the high blood-pressure from which the world is now suffering indicates permanent hardening of the arteries of trade, the prognosis for international economic life is not very cheerful. But if with careful treatment and sane living the arteries can be restored to their normal conditions, the world can again enjoy a full measure of economic health.

THE INTERNATIONAL BALANCE OF PAYMENTS

Although merchandise exports and imports constitute the largest entry in our international balance of accounts, there are many others. The exportation and importation of commodities make up the so-called "visible" items in international exchange, and in ordinary speech preëempt the term "trade" for themselves. But in addition to commodities, nations exchange services, which give rise to so-called "invisible" claims against one another. Chief among these are the expenditures of foreign tourists, freight and passenger traffic charges, and interest and dividends on foreign investments. Capital movements both for short-term deposit and long-term investment

358 INTERNATIONAL TRADE AND EXCHANGE

constitute a third major item in the international balance of accounts. The final and balancing item in the settlement of international accounts is furnished by gold shipments, supplemented by silver and a small amount of paper currency.

Every year the Finance and Investment Division of the Bureau of Foreign and Domestic Commerce in the United States Department of Commerce now issues one of the most interesting and informative reports published by the government. It is called "The Balance of International Payments of the United States". A summary of the report for 1934 follows.

SUMMARY OF UNITED STATES FOREIGN TRADE AND FINANCIAL TRANSACTIONS WITH THE WORLD, 1934

		Balance	
		Dollar receipts	Dollar payments
MERCHANDISE			
We sold goods in the amount of	\$2,133,000,000		
And bought goods in the amount of	1,655,000,000		
Net receipts from merchandise .....	.....	\$478,000,000	
SERVICE ITEMS			
We received for shipping and freight services	61,000,000		
And made payments for shipping and freight services amounting to	96,000,000		
	- -		\$35,000,000
We received from foreign tourists	94,000,000		
And our tourists spent abroad	314,000,000		
	- -		220,000,000
We received interest and dividends on our investments abroad	453,000,000		

INTERNATIONAL TRADE AND EXCHANGE 359

And remitted interest and dividend payments to foreign investors	126,000,000	327,000,000	
Our (immigrant) remittances and contributions for various causes amounted, net, to			124,000,000
We received from miscellaneous trade and service transactions	231,000,000		
And made payments for miscellaneous trade and service imports	191,000,000	40,000,000	
Net payments on service items			12,000,000
GOLD, SILVER, AND PAPER CURRENCY			
We exported gold in amount of	53,000,000		
And imported gold in amount of	1,187,000,000		1,134,000,000
We gained gold through release from earmarking (net)			83,000,000
We exported silver in amount of	17,000,000		
And imported silver in amount of	103,000,000		86,000,000
We received paper currency from abroad (net)			48,000,000
Net payments on gold, silver, and currency items			1,351,000,000
CAPITAL ITEMS (BASED ON REPORTED DATA)			
We sold stocks and bonds in amount of	990,000,000		
And bought stocks and bonds in amount of	885,000,000	105,000,000	

360 INTERNATIONAL TRADE AND EXCHANGE

We received, net, on account of sinking fund and bond redemption, direct investments, net inflow of funds from arbitrage transactions, etc	97,000,000	
The year's estimated net inflow of short-term banking funds resulting from (a) changes in foreigners' banking funds in the United States and (b) changes in United States banking funds in foreign countries amounted to	192,000,000	
Miscellaneous short-term credits (net) amounted to ....	.....	8,000,000
Net receipts on capital items	<u>386,000,000</u>	
RESIDUAL ITEM (LARGELY UNESTIMATED CAPITAL TRANSACTIONS)		
This item consists largely of (a) special transactions (such as the inflow of unreported private, commercial, and other funds, and miscellaneous foreign exchange operations) following the devaluation of the dollar on January 31, and (b) unreported international security transactions	499,000,000	

The balance of international payments of the United States for any year is merely the best available summary of the business transactions, not of the government but of the people of the United States, with all the rest of the world. It is obvious that whatever merchandise or services the United States sells abroad must be paid for by foreign nations. What we import we must pay for. If our exports of merchandise and services to the rest of the world are not completely offset by imports, our debtors must send us gold or we

must lend them the money with which to pay. What this means is that some of our citizens or institutions extend short-term or long-term credit to foreigners upon the strength of which they can do business with some of the rest of our citizens. The exchange transactions of the United States with the rest of the world must always be balanced in some way. Since the government does not have a record of all the business transactions of its citizens with foreigners (tourists' expenditures as well as other items must be estimated) it is impossible to draw up an accurate summary of international debits and credits.

Examination of the preceding "Balance of International Payments of the United States in 1934" shows that our merchandise exports were 478 millions of dollars in excess of the merchandise imports. That made the world our debtor on the merchandise account and, unless offset by other items, called for the flow of funds to the United States. But this movement of funds was further accentuated by the fact that we collected 327 millions of dollars more in interest and dividends on private American investments abroad than we remitted to foreign investors in American securities. Likewise we sold foreigners 105 millions of dollars more of our stocks and bonds than we bought of theirs. In addition there was a net "backwash" on previous American investments abroad of 97 millions of dollars, representing sinking fund, bond redemption, and similar payments. Finally, there was a net inflow of 192 millions of dollars of short-term banking funds for deposit in our banks by foreigners, and a further estimated intake of about 499 millions of dollars in long-term capital and other unreported international security transactions. All of these items built up the credit side of our international account and called for settlement with the United States.

But fortunately for the world, and for us, there were also substantial debits of the United States to other nations, although in the aggregate they were not nearly so large as the credits. The expenditures of American tourists abroad, as usual, exceeded the expenditures of foreign tourists in the United States. These excess expenditures created a net obligation of the United States to the rest of the world, which in 1934 amounted to 220 millions of dollars. American

residents sent a considerable sum of money to relatives and friends in foreign lands and made contributions to foreign institutions and philanthropies. This outflow of funds amounted to 124 millions of dollars in 1934. There is no record of a real flow in the other direction. The excess payments of the United States for freight and shipping charges over the amounts received on the same account apparently amounted to about 35 millions of dollars.

It is obvious, as far as the major items in the international balance of accounts are concerned, that the credits of the people of the United States in 1934 (the sums payable to us) greatly exceeded our debits (our obligations to other people). To settle the account foreign nations had to draw upon their gold reserves. They did so to the amount of \$1,270,000,000, the largest amount of gold ever acquired by the United States from foreign nations in a single year. In addition payment was made through net imports of silver by the United States amounting to 86 millions of dollars, and the repatriation of 48 millions of dollars of our paper currency which had been circulating abroad. The most striking fact about the "Balance of International Payments of the United States in 1934" is this huge importation of gold. There is not enough gold in existence in the world, nor is enough new gold being produced, to permit foreign nations long to settle their adverse balances with the United States by the transfer of so much gold. To sell more goods abroad, which is in the interests of our agriculture and industry, it will also be necessary for the United States to import more commodities and services from foreign nations. Temporarily, an excess of exports can be counterbalanced by making loans and investments abroad, but ultimately such export of capital also calls for payment through the importation of goods. Moreover, if a nation has adequate gold reserves as anchorage for its currency and credit, there is nothing desirable about the continued inflow of gold. It is a people's command over commodities and services of want-satisfying power that determines its favorable or unfavorable economic status. Gold is merely a convenient means of settling international accounts. Like the lubricating oil of a motor, it renders its highest service when it circulates.

THE MECHANISM OF FOREIGN EXCHANGE FACILITATING
INTERNATIONAL TRADE AND INVESTMENTS

International trade in commodities, the exchange of services, and capital movements for short-term and long-term investment are commonly financed through the purchase and sale of foreign bills of exchange. The process is analogous to the settlement of domestic obligations. A Chicago debtor may send his New York creditor his personal check drawn upon a Chicago bank, or possibly may purchase from his Chicago bank a draft drawn upon a New York bank. If the creditor happens to be located in London, however, instead of in New York, there is the additional complication of first converting American currency or bank credit into the amount of English pounds sterling necessary to discharge the obligation. This is accomplished through the purchase in the United States of sterling bills of exchange.

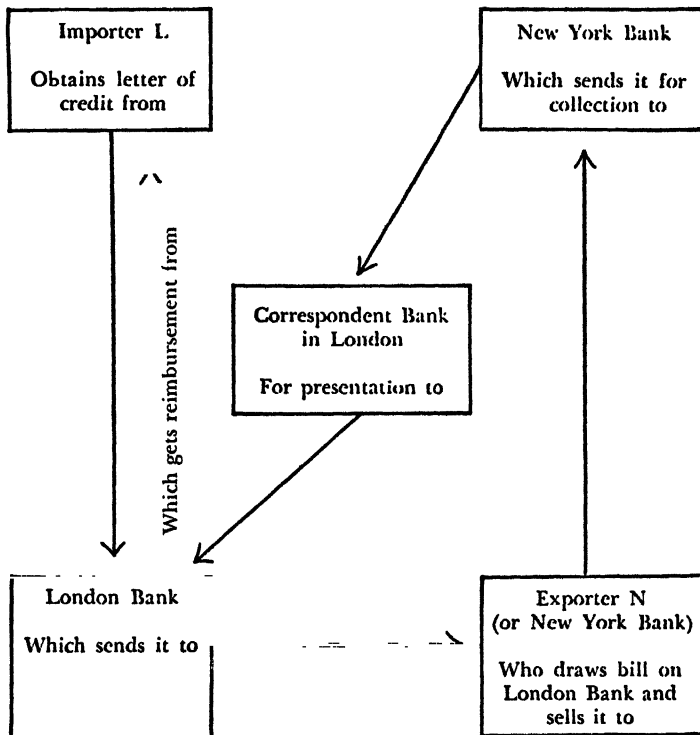
Buying and selling of foreign exchange. When we speak of buying and selling foreign exchange we mean the negotiation of such credit instruments as are used in making payments between different countries. A foreign bill of exchange is an unconditional written order addressed by one person, called the drawer, to another person, called the drawee, living in a foreign land, to pay a third person, the payee, a specified sum of money. The bill of exchange may be payable either at sight or on some definite future date. An American business house that has bought goods from a British exporter must ordinarily pay the latter in pounds, not in dollars. Accounts are payable in the currency of either the exporting or the importing country as specified. It is incumbent upon the debtor to deliver the purchase price. The object of dealing in foreign bills of exchange for the settlement of international obligations is to avoid the necessity of shipping gold, which is costly and time-consuming. American obligations to Great Britain may be more than counterbalanced by British obligations to the United States. American debits may be canceled by British debits, and only the difference need be settled with gold, the international medium of exchange.

In the financing of foreign trade and the transfer of payments

there are a number of practical methods of settlement. Initiative in effecting payments may be taken by either the importer or the exporter. Let us suppose that L, an importer in London, has ordered a consignment of goods from N, an exporter in New York, and that L's credit standing is so good and his business patronage so desirable that N is willing to send him the goods "on open account". N delivers the goods to a steamship company and obtains a bill of lading as receipt. This he sends to L in order that upon its presentation to the steamship company in London, L may obtain possession of the goods. At his early convenience L goes to his London bank and procures a draft of the London bank upon its New York correspondent, in which the latter is ordered to pay N a specified amount in dollars. L sends the bank draft to N, who presents it to the New York bank for payment. L has settled the account by buying "dollar exchange" in London. It is apparent that in this transaction the credit risk was taken by the exporter. He lost control of the goods when he sent the bill of lading to L; he assumed that L was good as a credit risk; and he waited for payment. Foreign trade is not commonly financed in this way.

Since the credit standing of the importer L may not be intimately enough known by exporter N to warrant him in shipping the goods on open account, L may go to his London bank and obtain a commercial letter of credit. In this letter the London bank, whose standing is either well known or easily ascertained, authorizes the exporter either directly or through a New York bank to draw his draft, within the sum specified in the letter, upon the London bank. The letter of credit may be sent directly to the New York bank rather than to the exporter, in which case the New York bank informs N of the credit established in his favor. Although there are many details in the administration of such foreign credits, ultimately either N or his New York bank draws a bill of exchange (draft) upon the London bank for a sum in pounds sterling which equals at the prevailing rate of sterling exchange the dollar indebtedness incurred by importer L. Shipping documents must be delivered by N to the New York bank that pays him for his goods. The New York bank, having acquired the bill of exchange from N at the current rate of sterling exchange, proceeds to collect it.

It is sent to the London correspondent of the New York bank for presentation to the London bank that had issued the letter of credit to L in the first place. When presented, it may be paid on sight or may be "accepted", depending upon the instructions under which the transaction was conducted. Finally, L must reimburse his London bank for the sum advanced on his account in the importation of the American goods. The financing of imports through the use of letters of credit and the resulting issue of bankers' bills may be illustrated by the following diagram.



USE OF BANKER'S BILL AUTHORIZED BY LETTER OF CREDIT FOR FOREIGN TRADE

Bankers' bills authorized by commercial letters of credit are widely used in the financing of foreign trade. To the exporter they have the advantage that he can get immediate payment for his goods; to the importer, that he can conveniently finance the shipment of the goods he wants. The credit risk is carried by the banks, who are compensated for carrying it and find profitable employment for their funds.

In both of the methods so far considered for settling an international trade transaction bank credit was employed, and the initiative for procuring it was taken by the importer. Bankers' bills were the medium of payment. Still another way, though not as frequently used as formerly, is provided when the exporter draws a documentary bill of exchange directly upon the importer and sells it to a bank or other agency in his own home market. British merchants, for example, who imported American cotton and wheat, commonly authorized the exporters to draw upon them for the amount of the purchase price. When the importing houses have well-known and unquestioned credit standing, and are located, as British merchants are, in an important financial center, such an arrangement is simple and has much to commend it.

The steps in the process of drawing a documentary trade bill, in the main, are as follows. N, a New York exporter of cotton, ships 100 bales of cotton to L, a London importing house. N delivers the cotton to the steamship company, obtains a bill of lading, buys a marine insurance policy to cover the risk in transit, and executes or obtains certain other necessary documents, such as invoices and inspection certificates. He attaches these documents to the trade bill of exchange which he draws upon L. Since N wants payment for his cotton as soon as possible in order to replenish his working capital, he may take the bill of exchange with all documents attached to his New York bank and offer it for sale. If N is in good financial standing, the bank will buy the bill, even though it may not be thoroughly informed in regard to the credit standing of L. The New York bank looks to L for payment, but N is also liable, and in addition it has title to the cotton. The bank sends the bill to its London correspondent for collection. When L pays the bill of exchange drawn upon him, he obtains the bill of lading which

enables him to claim the cotton from the transportation company.

The purchase and sale of bills of exchange, whatever their differences in form and terms, are the conventional means of financing foreign trade, and banks provide the usual market. Since international trade and finance involve the translation of the currency of one country into the currency of other nations, the next point that must be considered is the price or rate of foreign exchange. Two situations confront us: the case of nations whose currencies are on a gold basis, and the case of countries whose currencies are on an inconvertible paper money basis.

Price or rate of foreign exchange on a gold basis. If exporter N in New York has a foreign bill of exchange calling for the payment of pounds sterling arising out of a cotton transaction, what price in dollars will he be able to get for this sterling bill? The price of foreign exchange, like the market price of anything else, is an expression of the interaction of the demand for and supply of the good in question—in the present case, bills of foreign exchange. Into the price of foreign exchange there normally enter three factors: the amount of pure gold in the monetary units to be exchanged; the cost of shipping gold between the countries concerned; and the general credit conditions between the countries prevailing at the time the foreign exchange transaction takes place.

Par of exchange. The par of exchange of the dollar with the currency of any gold-standard country is found by comparing the amounts of pure gold in the two monetary units. The gold sovereign officially still contains 113.0016 grains of pure gold; although England suspended redemption in gold in September, 1931, no devaluation of the gold content of the sovereign has as yet occurred. The American dollar prior to January 31, 1934, contained 23.22 grains of pure gold. The old par of exchange between sterling and the dollar—perhaps the best-known par of exchange ratio in the world, because it stood so long and linked the world's two leading currencies—was obtained by dividing 113.0016 by 23.22, which gives as quotient 4.8665. When \$4.8665 had to be paid in New York for one pound sterling payable in London, sterling exchange stood at par. Since the pound sterling is now a paper unit, irredeemable in gold, there is no mint parity of the pound and the dollar, even

though the latter has at least temporarily been stabilized at 13.71 grains of pure gold.

France is the conspicuous example of a country on the full gold standard. The United States maintains a limited gold bullion standard, allowing gold to be shipped in the settlement of some international balances. The par of exchange of the franc and the dollar turns on the relative amount of pure gold in the two units. Since the franc contains 0.9097 grains of pure gold and the present dollar 13.714 grains, the par of French exchange is determined thus: $0.9097 \div 13.714 = 0.0663$. The franc is at par when it commands 6.63 cents in American money.

The par of exchange is not identical with the price or rate of foreign exchange. The market rate of exchange rarely stands at par, and then only because of determining market conditions. Market rates fluctuate about the par of exchange within limits set by the cost of shipping gold.

Cost of shipping gold. The actual price of foreign exchange, in normal times and under the operation of an international gold standard, fluctuates between points, above and below par, determined by adding to or subtracting from the par of exchange the expense of shipping gold. It used to cost between two and three cents to transport one pound sterling in gold between London and New York. Crating charges, freight, insurance, and loss of interest during transit of the gold were the chief items of expense. When a two-cent charge prevailed, therefore, the upper and lower points, technically known as the gold shipping points, were fixed at \$4.8865 and \$4.8465. Sterling exchange in New York fluctuated between these points.

The leading exchanges now on an international gold basis are the French and the American. The cost of shipping gold from Paris to New York in 1935 was approximately twenty-two cents per ounce. Since the par of French exchange in American money is only 6.6365 cents, the proportionate cost per gold franc is very small: about seven hundredths of a cent (\$.0007). The gold shipping points of the franc, therefore, expressed in American cents are 6.7065 and 6.5665, if we assume a seven-point differential as the cost of shipping.

Why cannot the rate of French exchange in New York rise above 6.70 cents or fall below 6.56 cents? The rate will not rise above 6.70 cents, for if it did, the American debtor who is buying a bill of exchange on Paris could better afford to ship gold in the settlement of his obligation, rather than to send a credit instrument. Individual buyers of foreign exchange for the settlement of their commercial accounts would hardly go to this trouble, nor need they. Professional dealers in foreign exchange are always alert to take advantage of any temporary fluctuations in exchange rates which make it profitable to ship gold. If the price of French exchange rose above 6.70 cents, American banks would find it profitable to ship gold and to continue to sell bills of exchange on Paris. Consequently, they can afford to sell French exchange at the upper gold point to all that want it.

Similarly, the rate of French exchange in New York may fall to the lower gold point, but not lower. The supply of French exchange in New York arises out of bills drawn upon French debtors by American creditors—to pay for American exports to France, for example. In selling French exchange in the American market, the American exporter or other creditor need not accept less than 6.56 cents per franc of obligation. If he were offered less, either he or someone acting for him would find it more profitable to import the gold. When a bank buys proffered French exchange (or any other exchange), it does so in the expectation that it will be able also to sell such exchange to others. If there is a long-continued excess of the supply offered over the demand for it, banks buying the exchange that is offered thereby build up their foreign bank balances but without adequate use for them. Consequently, they must consider bringing the funds home. This involves the cost of shipping gold. Under such circumstances, bankers buying French exchange will discount each franc of obligation by the cost of shipping gold francs from Paris to New York. At this lower gold shipping or import point bankers can afford to buy whatever French exchange is offered.

General credit conditions. The actual rate of exchange between any two countries, within the limits fixed by the cost of shipping gold, is determined by the relation between the demand for and the

supply of bills of exchange, which in turn depend upon the trade and credit relations of the two countries. French exchange is bought and sold in New York and in every other important foreign exchange center; dollar exchange, in Paris and in every other center. When an American buys French exchange, he wants to convert some of his own currency or bank deposit credit into an equivalent amount of franc credit in Paris with which he can do business there. Similarly, when an American has French exchange to sell, he wishes to convert francs that stand to his credit into equivalent American dollars here. Whatever necessitates the transfer of funds from New York to Paris ⁴ is a source of demand for bills of exchange on Paris. Whatever necessitates the transfer of funds from Paris to New York is a source of supply of bills of exchange on Paris, if settlement be made by drawing on French debtors.

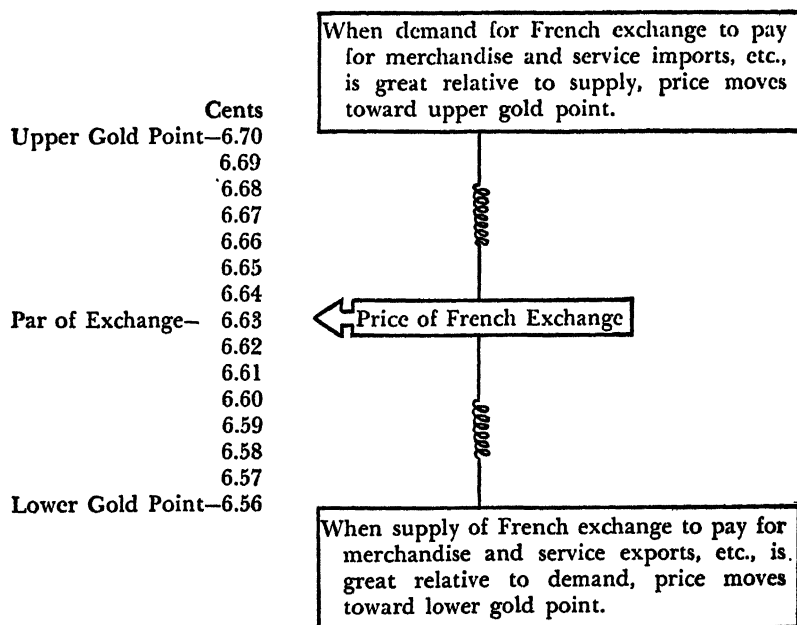
French exchange may be wanted for a variety of reasons in New York. Normally the demand springs from the necessity of paying for merchandise imports from France. It may be due to services rendered Americans by some French business companies engaged in ocean transportation or marine insurance. The exchange may be wanted to pay the expenditures of American tourists and residents in France who find Paris an attractive and easy place in which to spend money. Again it may be wanted to pay the interest and dividends on French capital invested in American enterprise. Or the demand may arise from the need of paying for French securities bought by American investors. Still another reason is that Frenchmen may have deposits in American banks which they seek to withdraw, and French exchange is bought in order to effect settlement.

The supply of French exchange in the American market of course originates out of the required movement of funds in the opposite direction, that is, from Paris to New York. Those who have claims on French bank balances and wish to convert them into dollars supply the French exchange in New York. The supply of French

⁴ New York, Paris, London, and other foreign exchange centers are used in this entire discussion as convenient illustrations of their respective countries. They are clearance centers. The demand for and supply of foreign bills of exchange may originate anywhere in the country.

exchange, for example, may be created out of collections for merchandise exports or for services performed.

Whenever the demand for French exchange exceeds the supply, French exchange goes above par, but usually not above the upper gold point. Whenever the supply of French exchange offered exceeds the demand for it, French exchange goes below par, but usually not below the lower gold point. The rise of French exchange, or any other foreign exchange, above par is an indication of a net outward flow of funds, just as a fall below par signifies a net inflow of funds. If the fluctuation in exchange rates is wide enough, it will lead to the export or import of gold. The particular rate of foreign exchange, then, in any given market is fundamentally a resultant of the relative strength of the demand for and supply of the bills of exchange in question.



The foregoing diagram may help to visualize the interplay of forces in the determination of the price of French exchange in New York.

Price of foreign exchange on an irredeemable paper basis. Foreign exchange rates, unless artificially "pegged" by the governments concerned, are usually demoralized during a war, because of the hazards of shipping gold and because nations find it necessary to suspend the operation of the gold standard. During the World War sterling sold for as high as \$7 for cable transfers (\$5.56 for drafts payable on sight) due to the heavy liquidation of British-owned securities in the American market and the inability of American banks to make the usual gold transfers. It later fell to a low point of \$3.22 due to the inability of British banks to make the necessary supporting gold shipments. Through most of the war period Great Britain "pegged" the price of sterling exchange in the United States at \$4.76 by standing ready to buy all offered sterling exchange at this figure. This she was enabled to do by arranging private and governmental loans in the United States.

When two countries are off the gold standard, or one is off and the other is on, and in consequence gold is not free to move in the settlement of international payment balances, there are no fixed limits to the fluctuations of exchange rates between them. The swings in the foreign exchange rates of countries operating on an irredeemable paper basis may be both wide and violent. Such has frequently been the case during the depression of the thirties, when almost all nations were forced to abandon the gold standard. When one or both of the currencies to be exchanged are on an irredeemable paper base the problem of determining the rate of exchange between them resolves itself first of all into ascertaining in some way the equivalent value of the currencies. The common denominator of a gold currency parity is not available. What is the gold dollar worth in paper pounds sterling? Or what is the equivalent value of the paper pound in some other paper unit such as the Spanish peseta? When an equivalent value of the currencies has been established, the actual exchange rates will still fluctuate about this temporary norm in accordance with the relative strength of the

demand for and supply of the bills of exchange of the country under consideration.

One way of ascertaining pairs of exchange between countries using inconvertible paper currency is to compare the amounts of each paper currency required to buy a given amount of gold in the free gold market or the amounts required to buy a currency that is still on the gold standard. Throughout the depression the gold franc has served as such a convenient standard of measurement, and the gold dollar through most of it. If the rates at which paper pounds and paper pesetas will buy gold francs are known, the ratio of the pound to the peseta can then be calculated as a sort of gold price par. Of course if all nations are off the gold standard, or if there is no free gold market, even this method of calculating temporary parities breaks down. Moreover, any such parity between paper currencies is momentary, since the paper currency prices of a quantity of gold or of a gold currency unit fluctuate. But it is, nevertheless, useful in the day-by-day transactions in foreign exchange.

If it is impossible to ascertain the comparative value of paper currencies by reference to gold, recourse may be taken to the purchasing power parity method. This method of computation involves a comparison of the domestic or internal purchasing power of the paper currencies. It is a matter of ascertaining how much of American money will buy the same quantity of goods at home as the paper pound, for example, will buy in England. The purchasing power of a monetary unit is measured by an index of the general price level. Prices of selected commodities in some base year, such as 1913 or 1926, are taken as 100 per cent. Prices of these same commodities at any other time may then be expressed as a percentage of the prices in the base year; the percentage is the index number of prices. For most of 1933 both the dollar and the pound sterling were paper units. The old gold parity was \$4.86. If the price index of the United States stood at 66 and the comparable price index of England at 75, prices were higher in England than in the United States and the purchasing power of the pound in relation to the dollar was declining. It accordingly should have required fewer dollars to buy a pound than formerly. Mathemati-

cally, purchasing power parity may be computed by multiplying the old gold parity (4.86) by the price index of the United States (66) and dividing the product by the price index of England (75). $(\$4.86 \times 66) \div 75 = \4.27 . Actual foreign exchange rates of two irredeemable paper currencies will not approximately equal such purchasing power parity, but will tend to fluctuate about it.

The purchasing power par of his currency does enable an international trader to estimate what the purchasing power of his currency over foreign goods should be. Unfortunately it is neither an accurate nor a steady gauge. There is lack of accuracy because there is no uniformity either in the selection of items for computing the price index or in the statistical treatment of them. There is lack of steadiness because the purchasing power par must change with fluctuations in the price levels of the countries whose currencies are being compared. In spite of these limitations the method is useful in explaining the long-term movements of international exchange rates.

Unstabilized currencies and instability in the exchange rates raise havoc with international trade and finance. Stabilization is highly desirable. But it can only come to stay when nations are willing to cooperate as neighbors, to lower tariffs, to repeal embargoes and quota restrictions on trade, and again to permit a reasonable degree of freedom in the international movement of both goods and capital.

CHAPTER XV

TRANSPORTATION

IMPORTANCE OF TRANSPORTATION IN THE MODERN EXCHANGE SYSTEM

The developments of the past hundred years in rapid transportation and communication have steadily widened the area within which goods can advantageously be bought and sold, and specialization in production practised on an extensive scale. It is this extent of modern markets, some of them nation-wide and others world-wide in scope, which strikingly differentiates modern economic society from earlier forms of economic organization. When railway trains regularly span the American continent in a little more than three days, when ocean liners cross the Atlantic in less than five days, and when the human voice can be projected and other messages sent into all parts of the world in incredibly short periods of time, it is obvious that efficient physical facilities for the exchange of goods have been created.¹ The steamship and the railway have been and are the chief means for the mass transportation of commodities. Great as have been the contributions of water transportation, it is the railway more than any other agency that has revolutionized transportation, built markets, and made profitable highly specialized production.

LEADING TRANSPORTATION AGENCIES FACILITATING THE EXCHANGE OF GOODS

The development of transportation in the United States epitomizes what has taken place in most of the world. Sailing vessels

¹ On April 25, 1935, Mr. Walter S. Gifford, president of the American Telephone and Telegraph Company, talked to Mr. T. G. Miller, vice-president, seated in another room fifty feet away, over a wire, cable, and radio circuit of 23,000 miles that went completely around the world. The voice impulses are said to have covered the distance in a quarter of a second. "There are no earthly limits to human speech", said Mr. Gifford in his telephone conversation.

brought settlers to the Atlantic seaboard. Rivers enabled their boats to carry them into the interior. They blazed trails through the forests and with the aid of pack animals were able to move their goods. In the course of time roads were built, rough and impassable though they were during certain seasons of the year. With the growth of the country, and the introduction of steam navigation beginning in 1807, more extensive use was made of rivers. A supplementary system of canals was developed, of which the Erie Canal, opened in 1825 and connecting Lake Erie and the Hudson River, was the most famous. With the invention of the steam locomotive by the Englishman Stephenson in 1829 and its introduction in America soon afterwards for rail transportation by the pioneering Baltimore and Ohio Railway, a marvelous century of railway development began. It did not stop until the United States from coast to coast and from the Canadian border to the Gulf had been covered with a network of railways providing rapid and adequate mass transportation for persons and goods. A human generation ago the coming of the gasoline engine was the harbinger of further far-reaching changes in the field of transportation. It created the automobile, the motor bus, and the motor truck and drove them over a rapidly improving system of surfaced roads. Ultimately it "took to the air" and sent commercial planes roaring through the skies with their loads of passengers, mail, and light commodities. These newer forms of transportation have seriously affected the business of the railways and have at least challenged their supremacy in the field of rapid transportation.

Railway transportation. But railway transportation is still our country's and the world's principal transportation agency. About three fourths of the transportation business of the United States, measured in ton-miles, is carried over the rails. Nearly one third of the world's railway mileage is found in the United States—248,829 miles out of a total of 796,541 miles at the close of 1931.² The ex-

² The figures pertain to first main track mileage. The total mileage of all tracks, including double and quadruple main tracks, yard tracks, and sidings, operated in the United States in 1931 amounted to 429,823 miles. By the close of 1933 first main track mileage in the United States had increased to 256,741 and total mileage had decreased to 425,664. *Forty-eighth Annual Report of the Interstate Commerce Commission* (Washington, 1934), p. 93.

tensive territory of the country, the wide distribution of its resources, the diversification of its industries, and the allegiance of its people to a single central government were particularly favorable to the development of railway transportation.

Whether judged by the number of their employees or the capital invested in them the railways of the United States constitute the country's largest industry, agriculture alone excepted. Peak employment was reached in 1920, when the number of employees stood at 2,022,832 and the railway pay-roll totaled \$3,681,801,193. In 1934 the totals had dropped to 1,009,000 and \$1,519,000,000 respectively.³ The net capitalization of all American steam railways in 1932 amounted to \$18,893,459,447. Net capitalization means the total funded debt, represented by bonds, plus the par value of the stock outstanding in the hands of the public; railway securities held by the railways themselves are excluded. The railways claim an original investment in the roads, equipment, and land as of June 1, 1933, aggregating about twenty-six billions of dollars.

The virtual cessation of new railway building since the World War suggests that the country is reasonably well supplied with necessary railway mileage. Existing lines will be improved as finances permit and traffic warrants. The promising developments of the future lie in the retirement of old and obsolete equipment and the substitution for it of locomotives of greater power, of freight-cars of many special types, of air-conditioned passenger cars more comfortable and luxurious in appointments, of greater speed without sacrifice of safety in the freight as well as the passenger business, and of a door-to-door collection and delivery freight service. The railways, actually and potentially, are equal to any demands that the economic life of the country may make upon them.

Water transportation. The water transportation lanes of the United States follow rivers, canals, and the Great Lakes and run along the Atlantic and Pacific sea-coasts. The bulk of our trans-oceanic freight traffic is carried in foreign-owned ships, and most of

³ Data pertain to the so-called Class I railways; that is, to roads whose operating revenues annually amount to one million dollars or more. Pay-roll figures should of course be adjusted for price-level changes if comparisons are made as to the real wages of railway employees. Cf. Bureau of Railway Economics, *A Review of Railway Operations in 1934* (Washington, 1935), p. 24.

our passenger travel occurs on the British, German, French and Italian lines. Bulky and non-perishable commodities, for the movement of which speed is not a prime consideration and low transportation costs are, make up the cargoes of shipping on our rivers and canals. When shipment can be made from one point to another on the same river, or on a connecting river or canal, it can be handled very economically. But if the shipment is for an inland point and thus involves extra carriage, loading, and unloading charges, the savings over through railway costs may be wiped out.

The State governments, and particularly the federal government, have spent enormous sums on the improvement of our inland waterways. Dredging, deepening the channels of rivers, constructing locks and dams, and building canals represent billions of dollars of expenditure for investment and maintenance. In less than a thousand miles on the Ohio River from Pittsburgh to the Mississippi, for example, there are forty-nine locks and dams. Although traffic on our rivers and canals has increased during the post-war period, it is not at all clear that the economic results achieved have warranted the outpouring of government funds. River transportation is in effect subsidized by the government.

Transportation on the Great Lakes is of steadily growing importance. The construction of the Sault Ste. Marie canals, connecting Lake Superior with Lake Huron, of the Welland Canal around Niagara Falls giving access to Lake Ontario and the St. Lawrence River, and of the Erie Canal (now the New York State Barge Canal) providing a waterway from Lake Erie to the Hudson River, has furnished water transportation between the interior of the country and the Atlantic seaboard. Great quantities of iron ore from the iron range of Minnesota, wheat from Minnesota, the Dakotas, and Montana, coal from Pennsylvania, and heavy goods, whether manufactured or raw materials, from many scattered shipping points regularly move across this greatest inland waterway in the world. The Sault Ste. Marie canal, for example, though not open to shipping more than eight months of the year, has in most years carried a heavier tonnage of traffic than either the Suez or the Panama canal.

Shipping along both our sea-coasts is under the American flag;

foreign-built vessels and vessels under foreign registry are legally excluded from the coastwise and intercoast shipping trade of the United States. Encouragement of an American merchant marine, which would be needed in the event of war, is one reason for the restriction of such shipping to American bottoms. The construction and operation of the Panama Canal have stimulated intercoast shipping for bulky goods, such as lumber, the marketing of which is expedited through low transportation costs. In 1933 "the net coastwise traffic amounted to 110,345,767 tons, valued at \$3,789,677,876".⁴

Highway transportation. Although highway transportation has always been important in the development of the exchange life of the country, even when the highways were nothing more than dirt roads, the coming of the automobile has greatly accentuated its importance. The automobile really created the hard-surfaced road. Of the 3,000,000 miles of public roads in the United States in 1933 approximately 25 per cent were surfaced, but only about 5 per cent were hard-surfaced.⁵ A network of surfaced "through routes" now covers the country and is being rapidly extended every year. Over these roads 21,524,068 registered automobiles traveled in 1934 in addition to 3,409,335 motor trucks. Good roads and the automobiles have promoted travel and the exchange of commodities and services. While most of the trucks are privately owned, some are common carriers operating over regular routes. Motor vehicles have developed new territory and taken traffic from the railways. As agencies for the transportation of passenger and freight they have an advantage over the railways in the fact that they neither have to provide nor constantly to maintain an expensive right of way and roadbed. State and federal governments generously provide the public highways. Taxes so far imposed, whether on gasoline or the vehicles themselves, do not begin to compare with the maintenance of way expenditures of the railways and the taxes paid by them.

Pipe-line transportation. For the movement of petroleum and some of its products the pipe-line is an important transportation agency. Crude oil is carried from production fields to refineries,

⁴ *Annual Report of the Chief of Engineers, U.S. Army, 1934, Part II, p. 1.*

⁵ Surfaced roads are of "low type" (sand-clay; gravel, water-bound macadam) and "high type" (concrete, asphalt, macadam). Cf. *Statistical Abstract of the United States (1934)*, p. 333.

and gasoline from refineries to distribution centers, by means of pipe-lines. Natural gas is also piped from the production wells to great consumption centers like the Chicago area. At the close of 1933 pipe-line carriers reporting to the Interstate Commerce Commission stated that they were operating 93,724 miles of pipe-line for the transportation of petroleum and its products.⁶ Since construction and maintenance costs of pipe-lines are very conservative in relation to the volume of business that can be done, pipe-line systems directly and indirectly compete with the railways. Directly they compete with the tank car; indirectly through the substitution of natural gas for coal they reduce the possible tonnage of the railways.

Air transportation. The infant transportation agency of the country is commercial aviation. But it is growing rapidly. The following table gives some idea of the progress made by commercial aviation in recent years.

AIR TRANSPORTATION IN THE UNITED STATES ⁷		
	1926	1934
Express weight carried (pounds)	3,555	2,133,191
Mail carried (pounds)	703,320	7,362,180 (data for 1933)
Passengers carried	5,782	461,743
Miles flown	18,746,640	75,602,152

European countries generally subsidize aviation directly, because like the merchant marine it is indispensable in the event of war. In the United States commercial aviation has not been subsidized except as contracts to haul mail may be regarded as partial subsidies. Where speed in transporting persons and commodities is the first consideration, aviation is of course unrivaled. The territorial expanse of the country, the daily commercial and financial relations of every section of the land with the East particularly, and the wealth and speed-temperament of the American people augur well for the rapid and extensive development of aviation in the United

⁶ Interstate Commerce Commission, *Statistics of Railways in the United States*, 1933, p. S. 134.

⁷ United States Department of Commerce, *Air Commerce Bulletin*, VI (1935), 227-229. The peak year of express carried was 1934; of mail carried, 1931, with 9,097,411 pounds; of passengers carried, 1933, with 493,141; and of miles flown, 1929, with 110,000,000 miles.

States. Every day Tennyson's prophetic vision comes true as we gaze into the skies:

Saw the heavens fill with commerce, Argosies of magic sails
Pilots of the purple twilight, dropping down their costly bales.

The relative importance of railway, water, highway, pipe-line, and air transportation in the interstate traffic of the United States is shown by the following ton-mile transportation business, classified on a percentage basis, for 1928, a fairly normal pre-depression year. The Bureau of Railway Economics estimates that "commercial freight traffic in the United States aggregated 620 billion ton-miles in 1928", distributed among the several transportation agencies as follows: ⁸

Steam railways	77%
Great Lakes	14
Pipe-lines	5
Inland waterways	2
Motor trucks, electric railways, and airplanes	2
	<hr/> 100%

DISTINCTIVE ECONOMIC CHARACTERISTICS OF THE RAILWAY BUSINESS

The railway business has certain important economic characteristics which together differentiate it from most other industries. One of these is the relative importance of fixed capital. More than twenty-six billions of dollars have been invested in the American railway plant; rights of way had to be acquired, roadbeds built, tracks laid, rolling stock and other equipment provided, and terminal facilities constructed. All such capital investments are fixed and largely incapable of any other use than the purpose for which they were intended. Comparatively little railway capital is in constant process of liquidation as is the case with manufacturing industries. The railways sell their services to the traveling and shipping public; in doing so they have to use a plant that represents an exceedingly costly capital investment when compared with the annual operating revenues. Most manufacturing enterprises expect to "turn over"

⁸ Bureau of Railway Economics, *An Economic Survey of Inland Waterway Transportation in the United States* (Washington, 1930), p. 8.

their capital one or more times per year. The operating revenues of railways are only a fraction of their invested capital. In 1933 the gross operating revenues of the Class I railways of the United States amounted to \$3,095,448,888 against a property investment stated by such roads as exceeding twenty-six billions of dollars. The peak had been reached in 1926, when such revenues were approximately equal to one fourth of the invested capital. The fact that railway service necessitates so heavy a fixed capital investment and that approximately two thirds of it is borrowed capital, with its heavy burden of fixed charges, is of major significance in explaining the economic situation and problems of the railways.

In consequence of the relative importance of fixed capital and costs in the railway industry and the comparatively low rate of "turnover", it follows that the transportation business conforms to the principle of decreasing costs and increasing returns. Increased traffic can usually be carried with relatively little additional cost per unit of traffic, because the railway plant is not used to capacity. Until the point is reached when increased traffic calls for new outlays of capital for such things as heavier roadbeds, double or quadruple tracking, larger terminal facilities, and more rolling stock, additional business can be accepted at a decreasing cost per unit of traffic. The profitableness of railroading strikingly depends upon the volume of traffic carried.

Another distinctive characteristic of the railway industry grows out of the fact that the costs of rendering railway service are so largely "joint costs". Joint costs represent outlays which result in the rendition of a number of different services from the same expenditure; how much of the cost is properly chargeable against one service and how much against another it is hard, if not impossible, to tell. The allocation of joint costs among the services rendered must always be somewhat arbitrary. What part of the outlay for the railway plant itself and for the maintenance of way is properly chargeable against the passenger service and what part against the freight service? When a long train of mixed freight, including coal, machinery, dry-goods, foodstuffs, and many other commodities moves into Chicago, how much of the total cost of operating the train can be fairly charged against each of these freight shipments?

No one can really say. It is commonly estimated that two thirds of the operating expenses of railways are joint costs.

Finally, the railways are public utilities, which allies them with such businesses as the telephone and electric light and power and sets them apart from ordinary competitive enterprises. Like other public utilities they render services which are more or less essential to the economic life of the people, and they operate most economically and successfully under conditions of monopoly. Most communities are dependent upon a single railway, and the railway is under obligation to serve the community. It has long been recognized that fair rates and efficient service are not to be procured from railways through the universal sway of competition but rather through the recognition of these enterprises as public utilities which must be regulated in the public interest. Whenever a number of railways connect important communities, they do compete in service in order to attract traffic, but no longer do they compete in rates. Cut-throat competition proved disastrous to the railways and disadvantageous to the public because the railways could not render adequate and efficient service under such conditions.

RAILWAY CHARGES AND THEIR INFLUENCE UPON THE ECONOMIC LIFE OF THE COUNTRY

Whether considered from the point of view of the public or the railways, railroad problems center around the issue of proper railway charges. Railway charges must be low enough to attract traffic and high enough to enable the railways to operate effectively, if a country is to secure the full advantages of a territorial division of labor and of large-scale production.

The revenues of the railways are classified as operating revenues and non-operating income. The former are of course directly derived from the business of transportation and mainly come from the collection of freight charges and passenger fares. The latter comes from investments and activities not directly involved in rendering transportation service. Some railways, like the Union Pacific, are heavy investors in the securities of other corporations. The Great Northern and the Northern Pacific railroads jointly own the Chi-

cago, Burlington and Quincy. The Canadian Pacific owns resort hotels. The Northern Pacific has derived substantial revenues from extensive landholdings. Income derived from such sources is "other income"—non-operating income. It has proved a "life-saver" for some of the roads during the hard years of the depression.

The expenses of the roads fall into two great classes: fixed expenses and operating expenses. Fixed expenses remain practically the same regardless of the amount of traffic carried. They include such payments as interest on the funded debt, rents, property taxes, an allowance for depreciation, some of the maintenance expenses, and the costs of operating the general offices, including principally the salaries of officers. They constitute the "overhead" expenses, which are largely the same no matter what the volume of business is. About 25 per cent of all railroad expenses are fixed or overhead expenses. Operating expenses are expenses incurred in the direct use of the railway plant for the transportation of passengers and freight. They include outlays for wages, fuel and other materials, some maintenance of way, structure, and terminal charges. About 75 per cent of all railroad expenses are operating expenses. All of the fixed or overhead expenses are constant; they are unaffected by the volume of traffic. Operating expenses, on the other hand, are partly constant and partly variable. It is commonly estimated that about one half of the operating expenses is constant, remaining practically the same whether little or much traffic is carried, and the other half varies with the volume of traffic carried. The classification of railway revenues and expenses may be conveniently summarized in the following tables showing the condensed income account for Class I railways of the United States in 1933, and the percentage distribution of classified railway expenses.

CONDENSED INCOME ACCOUNT, CLASS I RAILWAYS,
UNITED STATES, 1933

Operating revenues	\$3,095,448,888
Operating expenses	2,249,318,750
Net operating revenue	846,130,138
Taxes	249,602,895
Uncollectible revenues	1,208,372

TRANSPORTATION

385

Railway operating income	595,318,871
Rentals for equipment & joint facilities	121,009,665
Net railway operating income	474,309,206
Other income	194,159,684
Total income	668,468,890
Rent for leased roads	133,143,213
Interest on debt	532,618,503
Other deductions	16,508,094
Total deductions	682,269,810
Net deficit	13,800,920

CLASSIFICATION OF RAILWAY EXPENSES ESTIMATED ON A PERCENTAGE BASIS

	<i>Constant</i>	<i>Variable</i>	<i>Total</i>
Fixed (overhead) expenses	25	....	25
Operating expenses	37.5	37.5	75
	62.5	37.5	100

Since the fixed or overhead expenses are all constant and one half of the operating expenses is also constant (nearly two thirds of all costs are constant), it is easily seen why the railway business is an industry of decreasing costs and increasing returns as the volume of traffic increases. Twenty million dollars' worth of additional business, for example, will lighten the burden of constant expenses on each unit of traffic. If the existing business is large enough to cover the constant costs, new business amounting to twenty millions of dollars will sharply increase the net earnings of the road, provided existing rates are not disturbed.

The economic life of the country is greatly affected by the service which the railways render and the rates they charge, since both affect the marketing of goods. It is obvious that both the railways and the public have large stakes in the economical utilization of the railway plant.

SPECIFIC RATES BASED ON THE PRINCIPLE OF CHARGING WHAT THE TRAFFIC WILL BEAR

Since the operating expenses of railways are predominantly joint costs, incurred in the rendition of a number of different services from the same expenditure, it follows that railway charges cannot

closely conform to the cost of rendering the service. It is impossible to determine the costs with any degree of accuracy, although much progress has been made in railway cost accounting. Railway managers can readily enough estimate the additional costs of rendering a specific service, if they may assume that a given train is in operation anyway. This is a very different matter, however, from allocating the constant and variable costs to all the different services which they perform. What railway managers are interested in is procuring total revenues from all services large enough to cover total expenses with some profits that will show a return on the investment of the stockholders.

In practice the general manager, freight agent, and other railway managers, whose duty it is to establish the schedules of rates, are guided by a principle known under the somewhat misleading name of "charging what the traffic will bear". To the uninitiated layman this is apt to suggest extortionate rates. While there have been times in railway history when rates have been excessively high, the United States has had effective federal regulation of interstate rates at least since 1906, and the States have similarly regulated the intrastate rates. Rate schedules are proposed by the railways subject to such dual regulation. In basing rates on the principle of charging what the traffic will bear (which really means charging no more than the traffic can well afford to pay), railway managers are primarily concerned with ascertaining the *value of the service* to the shipper. If wheat can be sold for a higher price in Chicago than in Topeka, or anthracite coal will command a higher price in Minneapolis than in Scranton, the differences in the prices obtainable represent the value of the service to the shipper. Certainly he cannot afford to pay the railway a transportation cost higher than the value of the service to him. If railways for any length of time sought to charge more, they would kill the traffic or lose it to competing transportation agencies, if such were available.

In estimating the value of transportation service to the shipper, railways must consider the competition of other transportation agencies and production centers. Railways must meet the competition of other railways and cannot remain insensible to the rates offered by other types of carriers when these can render equally

satisfactory service. Widely scattered producing areas, moreover, compete with one another for rich central markets. The Chicago market, for example, is prized by the citrus fruit industries of both California and Florida. But California is more than twice as far away. It is to the interest of the railways serving California to fix their rates in such a way, if they can, as to provide California industries the widest possible market in competition with other producing regions.

As far as the value of the service is concerned, it is also obvious that some commodities can bear a much higher rate than others per unit of volume or weight transported. A shipment of silk from the Orient, carried by train from Seattle to Paterson, New Jersey, will stand a much higher rate than a trainload of lumber similarly transported across the continent. Heavy or bulky commodities, like coal, cement, and live stock, must be carried at lower rates than merchandise of high value and small bulk, if they are to be transported at all. Such differences in the value of commodities and the value of the service in transporting them are the basis of useful freight classifications. There are said to be millions of commodity freight rates between different shipping points in the United States. To get a manageable system of rates, railway managers have established different classes of freight. Dry-goods, for example, are not in the same freight classification with liquors. The rates for each freight classification between the origin and destination points are in accordance with what the traffic will bear. The economic justification of basing railway charges on what the traffic will bear rests on the fact that only in this way is it possible to secure the fullest utilization of the railway plant and to render the greatest service to the shipping public.

SPECIFIC RATES BASED ON THE COST OF SERVICE

Railway charges cannot be greater than the maximum set by the value of the service to the shipper or traveler. At the same time the minimum below which they cannot be set is the additional direct cost of rendering a particular service. Fixing rates in accordance with cost of service seems reasonable enough provided railway cus-

tomers are willing to pay the charges and the costs can be determined. Legislatures, commissions, and courts, in regulating the rates not only of railways but of other public utilities as well, have been very partial to the principle of basing rates upon the costs of rendering the service in question. The practical problems in determining the cost of service arising out of the predominance of joint costs and the difficulty of allocating a proper share of the fixed costs to each movement of traffic have proved the stumbling blocks.

In railway practice cost of service has various meanings. It may mean all expenses incurred in performing the service, thus including both operating expenses and fixed charges. It sometimes means only the operating expense incurred in using the existing railway plant to perform a given service, thus excluding that service's share of the fixed charges. Again it may mean only the additional expense of performing the given service, assuming the plant to be in operation anyway. If we assume that a certain railway in 1933 had fixed charges of approximately \$2,000,000 and operating expenses of \$6,000,000 and that the traffic handled was 10,000,000 tons, the average cost of service per ton is eighty cents if both fixed charges and operating expenses are included, and sixty cents if operating expenses alone are considered. It is possible that this road may be able to carry extra tonnage at an additional out-of-pocket cost of only forty cents per ton. At this low rate, of course, the traffic would contribute nothing to help cover the fixed charges. But if it paid enough to cover the additional cost of carrying it, and a little more besides, it would be profitable to take the business, even though it is carried for less than the average ton-mile cost. Logically, in order to avoid all discrimination between commodities, the charges for any item of traffic should be sufficient to cover the operating expenses incurred in moving it and its fair share of the overhead costs. Practically, much low-grade traffic could not be carried over the rails at all if the cost-of-service principle were to be so strictly applied.

If specific rates are to be based upon the cost-of-service principle, it is reasonable that they should vary, to some extent at least, with the length of the haul. But cost of service is not directly proportional to the distance a commodity or person is carried. There are other

factors in the cost. The operating costs of moving a consignment of goods include terminal as well as line haul costs. The former represent the outlays for handling, loading, and unloading the goods at the points of origin and destination, and are independent of the distance the goods are actually transported. The latter are the costs of actually hauling the goods to their destination and do vary with the length of the haul. In the practical procedure of fixing rates, even as regulated by the Interstate Commerce Commission, differences in distance are considered, but neither consistently nor proportionately. The competition of scattered producers—shippers who desire access to advantageous central markets—and the equally intense desire of commercial centers to enjoy rates that will permit the widest possible distribution of goods in competition with other centers, largely account for the chaotic existing rate structure as far as the factor of distance is concerned.

THE GENERAL LEVEL OF RATES

The general level of rates is an abstraction from thousands of specific rates charged on individual freight shipments. The preceding discussion has shown that in individual cases the range within which specific rates must fall is determined by the value of the service to the shipper, as an upper limit, and the additional direct cost of rendering the service, as a lower limit. It is obvious, however, that if rates generally were no higher than this lower limit, there would be little or no revenue to cover the overhead expenses and nothing at all as a return on the investment. Whatever may be done in individual instances, the general level of rates must be high enough to yield revenues that will cover both the fixed and the operating expenses. If the fixed expenses, including principally interest on borrowed capital, are not met, bankruptcy of the roads is inevitable.

If the railway industry is to be run as a private enterprise, the general level of rates should also be high enough to allow a reasonable return on the invested capital of stockholders. What constitutes a reasonable return it is hard to say. When the railway industry is still in the growing stage and new investments of capital are constantly needed to provide either extensions or improvements,

it may be defined as such rate of return as will attract new capital into the railway industry. If a railway cannot show financial and operating statements that indicate satisfactory returns on the invested capital, it can hardly expect to sell its bonds in the open market or to float new stock issues.

Neither federal legislation nor regulations by the Interstate Commerce Commission attempted to prescribe what constitutes a reasonable rate of return until Congress in 1920 enacted the Esch-Cummins Law amending the Interstate Commerce Act of 1887, which had inaugurated the federal regulation of railways. Congress declared that a rate of return of $5\frac{1}{2}$ per cent, with an additional $\frac{1}{2}$ per cent for non-productive betterments, was reasonable. Subsequently, the Interstate Commerce Commission under power conferred upon it changed the standard rate of return to $5\frac{3}{4}$ per cent. All that this meant was that the Interstate Commerce Commission would allow the railways to establish rates that would permit them to earn $5\frac{3}{4}$ per cent on the aggregate value of the railway property in each of the rate-making districts into which the country was divided. As a matter of historical fact the railways as a whole were never able to initiate rates, which the traffic would bear, that yielded any such return.

A rate of return, even when declared reasonable by competent authority, is meaningless except as it is applied to some figure as a base. The question at issue was, what is the fair value of the invested capital of the railways? To answer this question Congress had at an earlier date (1913) under the Adamson-La Follette Valuation Act directed the Interstate Commerce Commission to ascertain the capital value of the railways upon which a reasonable rate of return might be computed. The commission was engaged upon the task for more than fifteen years, seeking to ascertain the cost of reproduction new of the railway property, its cost of reproduction minus depreciation, and its original cost to the extent that this could be determined. Tentatively, in 1920 before the completion of its valuation work and under the mandate of the Esch-Cummins Act, the Commission set the "fair valuation" of the railways of the country for rate-making purposes at \$18,900,000,000. In later years this was raised to over \$20,000,000,000, including the value of the land owned by the railways.

The practical purpose served by this attempt to fix the general level of rates in such a way as to allow the railways to earn a reasonable return on the fair valuation of their invested capital was to assure travelers and shippers that railway charges were not excessive and to inspire confidence in the value of railway securities. It tended to rehabilitate railway credit; investors had some assurance that they would get a "square deal". But events beyond the control of both the railways and the regulatory commissions soon largely relegated theories of reasonable return and fair valuation into the limbo of forgotten things. The primary post-war depression of 1920-1921, the increasing severity of competition from motor trucks and buses, as well as from private cars, and the devastating and prolonged depression of the thirties made it hopeless to establish a general level of rates that would yield any reasonable return on fairly determined capital value. The traffic could not afford to pay such rates.

Realizing the futility under present and immediately prospective conditions of the rate-making principles and procedure set up in the Esch-Cummins Act, Congress made them obsolete when it passed the Emergency Railroad Transportation Act of 1933. No longer is the Interstate Commerce Commission under a legislative mandate to allow rates that will yield any stipulated reasonable return on the fair valuation of the invested capital of the railways. A more opportunistic method of rate-making is suggested in the following section of the act:

In the exercise of its power to prescribe just and reasonable rates, the Commission shall give due consideration, among other factors, to the effect of rates on the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers, under honest, economical and efficient management, to provide such service.⁹

PLIGHT OF THE RAILWAYS IN THE UNITED STATES

Although the railways are the backbone of the transportation system of the United States, they are confronted with financial

⁹ Emergency Transportation Act of 1933, Section 205.

problems that look staggering and will call for many receiverships and reorganizations. But their condition is by no means hopeless. The present plight of American railways is fundamentally due to a gradual loss of traffic which was in evidence even before the depression beginning in 1929. The motor truck did much short-distance and long-distance hauling that was formerly done by the railways. The bus and private automobile carried many passengers, particularly when the weather was favorable, who previously traveled on the railroads. The airplane took many passengers who had been accustomed to travel on the fastest trains and were able and willing to pay for the best accommodations. Some of this loss of business was doubtless due to short-sighted policies on the part of railway managements in meeting this competition. But the competition of other transportation agencies was severe and in many cases impossible to meet.

Loss of traffic was, of course, greatly intensified as a result of the slowing-down of business in general during the depression. Freight ton-miles on Class I roads decreased from 447 billions in 1929 to 233 billions in 1932, since which there has been some increase. Similarly, passenger-miles fell from 31 billions to less than 17 billions in 1932, and dropped to a little over 16 billions in 1933. Operating revenues declined from \$6,280,000,000 in 1929 to \$3,095,000,000 in 1933—a decrease of over 50 per cent. Operating expenses also fell from \$4,506,000,000 in 1929 to \$2,249,000,000 in 1933—also a decrease of about 50 per cent. While taxes also decreased, due largely to lower earnings and smaller income taxes, the decline was not so great; rental charges for the use of equipment and joint facilities remained practically unchanged during the period; and the heavy fixed charges on the funded debt actually increased. The net income of the Class I railways, amounting to \$896,806,000 in 1929, gave way to a deficit of \$139,203,000 in 1932, but the deficit was cut to \$13,800,000 in 1933. What the railways desperately need is an increase of traffic. The report of the National Transportation Committee (1933) says: "It has been estimated that less than a 20 per cent increase in traffic would put most of them on an earning basis."

The drastic reduction in the net income of the railways naturally affected their credit. Only a few of the strongest roads have been able to raise needed capital funds through the sale of bonds. Banks have made some short-term loans, and the government has made heavy advances through the Reconstruction Finance Corporation.

Businesses not burdened with relatively heavy funded debts have fared better during the depression than those not so fortunately situated. They have not had to worry about their creditors or the knock of the sheriff at their doors. But the railways do not belong to this care-free class. The heavy funded debt of the railways, which is not regularly amortized from year to year, makes its insistent demand for the payment of interest and for the payment of principal as bond issues mature. The net capitalization of all Class I railways in 1932 was \$18,893,000,000, of which \$11,835,000,000 represented funded debt and \$7,058,000,000 capital stock. Inability to meet their debt obligations is forcing some roads to reorganize under the bankruptcy laws, which permit temporary or permanent scaling-down of the debt charges. The present plight of the railways is no little due to the disproportion between interest-bearing debt and capital stock in their capitalization. Railway debts, like any other debt incurred for capital purposes, should be amortized in regular annual instalments. Instead it has been the almost universal practice of the roads to refund their debts as they matured.

After a thorough investigation of the present railway situation in the United States, the National Transportation Committee declared:

The railroad system must be preserved. Changed conditions require new policies but not abandonment of railroad regulation. The development of regulation and of new methods of transport make it unnecessary for government further to create and foster competition with or among railroads as a defense against monopoly. That is an expensive and ineffective attempt to do indirectly what the government has shown its ability to do directly. Regulation is sufficient. Government policies should be freed of any purpose either to favor or to handicap any form of transportation with relation to any other form. We cannot solve the problem on the theory upon which horses are handicapped in a race. In a fair field and no favor competition should be permitted to decide the result. Regulation should not attempt

to "run the business" of transportation. It should concentrate on protecting the public against discrimination and extortion and on requiring the most efficient service at the lowest competitive cost.

At the foundation of our system of communication is the railroad web. It is the most important single element in our social and economic life. Its rapid extension enabled us to cover the greater habitable part of a continent with a cohesive form of liberal government of 125,000,000 people united in a common language, purpose and ideal and to maintain national solidarity through periods of stress. Both security and material welfare are involved in its continued efficient existence. The public interest is deeper than its investment or its need of good service. We are addressing a matter of national concern of the first magnitude. The railroad system must be continued and its efficiency preserved because of national necessity—economic, social and defensive.¹⁰

¹⁰ The committee was composed of Calvin Coolidge, Alfred E. Smith, Bernard Baruch, Clark Howell, and Alexander Legge. Its research staff was headed by Harold G. Moulton, president of the Brookings Institution. It was organized in October, 1932, upon the invitation of more than seventy insurance companies, savings-bank associations, and educational institutions which have heavy investments in the bonds of the railways.

CHAPTER XVI

RISKS AND INSURANCE

RISKS IN MODERN ECONOMIC SOCIETY

Because we are sure only of the past and of each passing moment, although future events sometimes cast their shadows before, risk is universal in man's experience and uncertainty pervades all of his activities. There are the risks to person lurking in accidents, sickness, and death. There are risks to property provided by the elements of nature, fire, and the depredations of avaricious men. All business, either in the short run or the long run, is uncertain as to outcome. And the jobs, with the income which they afford, upon which hundreds of millions of people must depend for a living are notably insecure.

Some risks are pleurably exciting, while others arouse dread and fear. Some are deliberately courted, even created, while others are shunned or avoided by all means known to man. The risks of business, for example, are willingly assumed in the hope of ultimate gain. Gambling hazards are artificially created both for the hope of gain and the excitement of something at stake on an event the outcome of which is as yet unknown. It is to be hoped, if gambling is indulged in at all, that the pleasures of taking chances are sufficient compensation for the losses that are bound to accrue to many. The risks of fatal accidents, on the other hand, most sane persons seek to avoid. The risk of long-continued unemployment is the curse of honest, capable, and industrious workers. Nothing is so prejudicial to the best results as the constantly haunting fear of insecurity. The basis of human happiness largely lies in the opportunity for self-development, for normal human functioning, for shaping life so that in its totality it will constitute a career. But for many life is little more than a succession of short-time jobs with periodic unemployment. Surely most people

would agree that human beings have a right to look forward to learning how to do things that will provide fairly steady employment and a fair return, of establishing decent homes, of accumulating a little reserve to provide for the contingencies of life, of satisfying some of the higher cultural wants of life, of spending their declining years in a modicum of comfort free from the more pressing financial worries of life. But these are blessings that are as yet denied to millions of our fellow-men. The short-time wage contract gives no assured status in our economic society. The modern laborer has no permanent and guaranteed association with production. No one is under any obligation to renew his wage contract when it expires. Uncertainty and insecurity are his usual lot.

The incidence of risks. From the individual's point of view some risks are inescapable, others can be prevented, and still others for a relatively small consideration can be shifted to and shared by others. The risks in so-called "acts of God" are beyond human calculation and control. Natural catastrophes like droughts and floods may play havoc with man's investments and enterprises in spite of all that men may do to circumvent them. Such risks are unavoidable. Risk-taking is also inescapable in normal business operations; indeed the *raison d'être* of entrepreneurs is found in their willingness to assume the risks essential to business enterprise. Through careful study and analysis of market trends, either by their own research departments or by outside advisory services, the more successful business men endeavor to substitute whatever information is available for haphazard estimates and guesses and correspondingly to reduce their risks.

Some risks can be either greatly reduced or prevented entirely. Much has been done in reducing the hazards of fire through modern fire-proof construction and the provision of efficient fire-fighting apparatus and agencies. The risk of industrial accidents has been sharply reduced through the installation of many safety devices and measures. Prophylactics against disease, particularly of the sort that used to result in widespread epidemics, have at least curbed the risks to health. Automatic burglar alarms and safety

deposit vaults have reduced the risks to certain valuable forms of property.

Still other risks can be transferred to other persons or at least shared by them. The vast business of insurance has developed in response to the demand of men for coöperation in the bearing of losses arising out of the risks of life and of business. To afford protection against losses that might prove unbearable to the individual is the fundamental principle in the insurance business.

INSURANCE AS A MEANS OF SHIFTING RISKS

Insurance is a business the chief function of which is the assumption of risk by distributing among many the losses sustained at any given time by a few. For procuring the security of coöperative relief men agree to pay designated sums, called premiums, and thereby substitute the outgo of a small known premium for the large, unknown, and perhaps unbearable loss which might befall them. Insurance creates a feeling of security in the individual; it facilitates business because it reduces risks and prevents the disorganization of business when certain losses occur; it may even reduce losses through the superior care which the insurance companies make it to the advantage of the insured to take.

Insurance is not a gigantic wager on the part of the companies against the probability of certain contingent events becoming actual occurrences. While some forms of insurance are still highly speculative, such as insurance against bad weather on a particular occasion, insurance and gambling on the whole represent an almost direct antithesis. Insurance requires coöperation in the bearing of necessary risks; gambling implies the creation of artificial risks. Insurance results in some gain to all parties concerned in an insurance contract; gambling means certain loss to some, with gains, often only temporary, to others. The scientific basis of insurance, which differentiates it from a mere wager on a fortuitous event, is found in the laws of large numbers and of probabilities applied in experience tables. Life insurance offers the best example, since death, the event insured against, is bound ultimately to become a

certainty for all. Certain as death is for all, its time is uncertain in the case of any individual. But data collected for large numbers of insured lives and now embodied in the American Experience Table of Mortality show the probability of dying or surviving at any given age. The American Experience Table of Mortality, used almost exclusively by insurance companies in the United States, postulates 100,000 persons just beginning the tenth year of life. Past experience shows that 749 will die during the year. At the beginning of the fiftieth year 69,804 are left, but 962 will not survive the year. Of the original 100,000 only 3 enter upon their ninety-fifth year, and according to the American Table none survives it. John D. Rockefeller, Sr., and a few others have proved that the table is not perfect in its accuracy, but these few exceptions to the rule do not affect its practical validity and usefulness in computing insurance premiums and costs. If the probability of the occurrence of an event can be determined by actuarial means and large numbers of such risks can be combined, insurance contracts can be bought and sold on a scientific basis.

For many, if not most, of the economic risks of life forms of insurance have been developed. Leading types of insurance cover risks of person, including death, accidents, sickness, and old age; risks of property, including fire, wind-storm, burglary, marine loss, and casualties of many types; some risks of business; and in a rudimentary way, some risks of unemployment. While the business of insurance is built on the idea of combining risks of the same kind for the purpose of protecting each member of the group, no other risks in the aggregate are as neatly calculable as those covered by life insurance. The reason is obvious—"All men are mortal"—but not all must suffer accidents. The contingencies covered by insurance in the great majority of property insurance contracts do not become actualities at all.

RISKS OF PERSON

Insurance against the risk of death. While death is certain for all, its exact time is highly uncertain. Men try to protect themselves against the risk of dying without provision for their dependents.

This the purchase of life insurance policies may accomplish. A life insurance policy is a written contract between the insurance company, as insurer, and the insured, stipulating, whatever other details the contract may contain, the amount of the policy to be paid together with its time of payment, the annual premium to be paid by the insured during the life of the policy, and the name of the beneficiary. Although there are many forms of life insurance policies, new features are frequently introduced in the contracts as a result of the highly competitive nature of the business of selling life insurance. Certain distinctions are important. Policies may be classified according to maturity, participation in the earnings of the company, and the type of premium plan.

Policies classified according to maturity. Classified according to the date of maturity of the policies, there are four important forms of life insurance: *term*, *ordinary life* (sometimes called "whole" or "straight life"), *limited payment life*, and *endowment*.

Term insurance is temporary insurance. The insured buys protection from an insurance company for a designated period of time. The amount of the policy is payable only if death occurs within the designated period; nothing at all is either refunded or paid if the insured survives the term for which the insurance ran. Term insurance is the cheapest of the four forms here considered. It appeals to men who want the maximum of protection for the minimum outlay during a limited period of time. Protection of a young family against the contingency of the untimely death of the chief or sole breadwinner is a case in point. Unusual but temporary risks in business furnish another.

In an ordinary life policy the amount of the policy is payable upon the death of the insured, premiums being payable throughout life. If the policy happens to be written by a mutual life insurance company (a company in which policy-holders participate in the net earnings), and if the dividends to which the policy-holder is entitled are left with the company, such dividend accumulations may be used to buy "paid-up" insurance for the amount of the policy even before the death of the insured. Ordinary life insurance is the cheapest available form of permanent insurance. The insured becomes a party to a contract which not only guarantees him protection but

ultimately enables him to leave a bequest to his designated beneficiary. The chief objection to this type of insurance is the continued payment of premiums throughout the life of the insured; in certain cases this objection can be overcome in the way that has been indicated.

Limited payment life insurance policies call for premium payments only during a limited number of years, the face amount of the policy, however, being payable at death. The premium payments usually run from ten to thirty years, the "twenty-payment life policy" having proved the most popular. The premium payment is of course larger than in the case of "straight life" policies. The limited payment life policy has the undoubted advantage to the insured, if his income permits, of paying for his insurance during the most active and productive years of life. Moreover, there is some satisfaction in knowing that at some definite time in the future the job of building a life insurance estate for one's beneficiaries will be done.

Term, ordinary life, and limited payment life policies all call for payment of the face amount of the policies only upon the death of the insured. An endowment policy, which runs for a fixed term of years, not only provides for payment of the policy upon death of the insured, if he dies within the period, but also guarantees payment at the expiration of the period, if he survives. An endowment policy provides protection for one's beneficiaries during the period of the policy and at the same time provides a competence for the insured if he survives. If a man forty-five years of age buys a twenty-year endowment life insurance policy and survives the period of the policy, he will at age sixty-five be able to enjoy the funds represented by whatever amount of insurance he has been able to carry. The annual premium per thousand dollars of insurance is higher than in the case of the other types of policies. An endowment policy practically combines in one contract the protection which insurance affords and an investment which accumulated savings at the disposition of the insured, if he lives to use them, represent. The particular advantage of an endowment policy for some persons lies in the incentive to save which periodic insurance premiums offer. Except for the necessity of meeting insurance premiums in order that the in-

surance itself may not lapse, many persons would not make the extra effort to save and thereby eventually build up an insurance estate.

Policies classified according to participation in earnings. A second important classification of insurance policies pertains to their participation in the earnings of the company. From this point of view policies are either participating or non-participating; they either share or do not share in the profits of the company. The surplus earnings of an insurance company are the difference between the assumed cost of doing business as represented in the premiums collected, and the actual cost of meeting its insurance contracts. There are four main sources of such surplus earnings. The company may be able to invest the huge trust funds committed to it at a higher rate of interest than that assumed in computing the annual premiums to be paid. If a company can earn 4 or 5 per cent on its investments and a 3 per cent return has been assumed in fixing the premium rate, it is obvious that here is one possible source of surplus. Again over a period of years a company may not actually have so heavy a mortality as that assumed in the table on which its premiums were based. There may also be savings in estimated expenses. Premiums are "loaded" to allow for contingencies and the expenses of the company. "Loading" is a term used in the insurance business to cover expenses. Finally, certain adventitious gains, more apparent than real, result from the lapse and surrender of policies, when the cash surrender values are less than the reserves set up for the policies. The policies of a mutual insurance company participate in the earnings of the company, whatever the source of such earnings may be. In mutual insurance companies the policy-holders constitute the company and ultimately control its management. The policies of a stock insurance company, if it is strictly of the stock type, do not participate in the earnings. What dividends are disbursed out of surplus earnings go to the stockholders who have supplied the capital stock. The early premiums on non-participating policies in stock companies are lower than similar premiums in mutual companies, which helps to even the competition between these rival forms of insurance company organization. The higher charges of mutual companies, not needed to meet their obligations, together

with available surplus earnings, are returned to the policy-holders in the form of dividends.

What the holder of a participating policy does with his dividends is a matter for him to determine. A number of options are open to him. He may draw the dividends in cash or apply them on his annual premiums. He may use them to buy paid-up additions to the face amount of his policy. He may allow them to accumulate with the company and thus shorten the premium paying period, for whenever the reserves set up against his policy together with the dividend accumulations will at the insured's then attained age command an amount of insurance equal to the face of the policy, his policy may be indorsed as fully "paid-up insurance". He may simply allow the dividends to remain with the company drawing interest at a stipulated rate and withdrawable on any annual premium date.

Policies classified according to premium plan. Classified according to their type of premium plan insurance policies fall into two large classes: those built on the natural premium or "step-rate" plan and those built on the level premium plan. Under the natural premium plan the insured pays a premium each year just large enough to cover the cost of protection for the then attained age of the insured. Renewable one-year term insurance offers an illustration. Since the probability of death increases with advancing age, it follows that the annual natural premiums must correspondingly increase until at last they become prohibitively burdensome. This is the rock on which many of the early fraternal organizations foundered in their attempts to provide cheap insurance. They began by making a "flat" assessment against all their members, regardless of age, to provide insurance benefits for a deceased member. This crude method was superseded by assessments "graded" according to the age of their members upon admission to the order, but the gradations were not sharp enough wholly to cover the cost of insurance for the attained ages of the insured, which is the essence of the natural premium plan. Strict adherence to the latter, however, would have meant prohibitive rates for those in the older age groups. It is apparent that in order to profit by the low cost of the natural premium plan the policy-holder must die young. In practice the plan

of paying for insurance protection as one gets it and enjoys it did not work satisfactorily. Companies offering it had to rely upon the constant accession of new members to keep going. A modification of the natural premium plan is furnished by the "step-rate" plan under which the same premium is paid for a term of years, such as five, after which it is advanced for successive similar terms. At age sixty or thereabouts, however, the rates become level for the rest of life.

While the natural premium plan calls for an increasing payment with advancing years, the level premium plan provides for the same annual payment throughout the life of the policy. Payments during the early years of the policy are greater than the actual cost of providing the protection, as determined by the mortality tables, and during the later years are less. The excess of the early years must be set aside and held as a reserve for the benefit of the policy-holder to offset the deficit of later years. Accumulating reserves are further increased by the interest which their investment earns. The holding of reserves in invested trust funds makes it possible to offer insurance at attractive level premium rates throughout the life of the insured or the term of the policy. The existence of reserves is the *sine qua non* of all scientific insurance. Such insurance is sometimes called "old line insurance". The phenomenal growth and success of modern life insurance is largely attributable to the employment and wise application of the reserve principle.

Since the life insurance contract usually involves rights and benefits beyond the lifetime of the insured, the insurance business offers a fruitful field for the exercise of State supervision and control. Moreover, the many scattered policy-holders, who are incapable of unified action, must be protected against possible misrepresentations and dishonesty on the part of occasional unscrupulous officials. State laws have been enacted and control bodies set up governing both the organization and the operation of insurance companies. Prior to the establishment of effective State control there were numerous "insurance scandals".

Insurance against accidents. Insurance against accidents, sickness, old age, and invalidism may be either private or social, voluntary or compulsory. Many individuals make their own insurance

provision against these personal hazards. Thoroughly established and financially sound insurance companies stand ready to sell it. Whenever a given risk is widespread, of frequent occurrence, and lends itself to actuarial determination, insurance for it can be safely bought and sold. Accident insurance falls within this category. Voluntary measures and agencies, however, do not reach many persons most urgently in need of such protection, and who on account of insufficient forethought or income have failed to provide it for themselves. Only socially provided insurance, compulsory in character, can meet the situation.

Certain forms of insurance, not only for accidents but also for sickness, old age, and unemployment, have come to be called "social insurance" because provision for them has been made by legislation. To be sure, all insurance is essentially social, since it substitutes social or coöperative action for individual action. But the term "social insurance" is most frequently used to designate the insurance plans and agencies provided under authorization and regulation of the State for the protection of lower-paid workingmen. To be really effective such insurance must be general, which means that it must be made compulsory by law. In the absence of compulsion there are always plenty of persons who would be willing to take a chance. For nearly half a century certain European countries have been gradually developing comprehensive plans for the relief of economic insecurity. Twenty-five years ago the United States made a beginning in the insurance of industrial accidents under workmen's compensation laws. The idea spread rapidly from State to State. Only recently, however, have we seen the development of a more comprehensive plan to cover the major personal hazards contributing to economic insecurity. Doubtless in the long run we shall regard social insurance as one of the greatest contributions to the improved economic status and outlook of the wage-earners of the country.

Social insurance against industrial accidents universally took the form of workmen's compensation legislation.¹ Under most statutes the employer liable for compensation to his injured workingman is obliged to insure his risk in order to make sure that there will be no

¹ For further discussion of this subject cf. Chapter XXXV, "The Control of Industry for the Protection of Labor", pp. 886-891.

question about his ability to pay. The economic losses of industrial accidents, which involved not only medical care, supplies, and possible hospitalization, but also the loss of wages due to inability to work, often fell with crushing force upon the injured workingman and his family. Prior to the days of workmen's compensation legislation with insurance of the risks involved, his only means of redress was a successful suit for damages establishing the negligence of the employer under either the common or statute law of employer's liability. Bringing legal action was a wasteful and often futile procedure. But the modern system of accident insurance had its inception in this legal liability of the employer for his own negligence. Today in Europe and the United States industrial accidents are generally regarded as a charge against the industry, the employer pays the compensation provided by law or by the supervising governmental agency, and the employer's risk may be carried by insurance companies or associations specializing in this type of business.

Insurance against sickness. No progress comparable to the social insurance of industrial accidents has as yet been made in the United States in providing for the economic risks of illness. Yet illness is widespread, of frequent occurrence, and capable of statistical measurement. To the individuals afflicted it is often a costly experience. Insurance against the economic losses of illness is just as feasible as it is in the case of accidents. Public poor relief, often extended to the sick, and the sickness benefits of fraternal orders and trade-unions are the forerunners of systems of sickness insurance. Only in the past half-century has the need of compulsory health insurance been socially recognized.

The two leading compulsory systems are the German (1883) and the British (1911). Both systems are not only compulsory but also contributory. In Germany one third of the weekly premiums is met by the employers and two thirds by employees. More than two thirds of those gainfully employed in the country are covered by the system. In Great Britain the cost is also divided between employers and employees, and the government adds a small subsidy. In the United States through the coöperation of the federal government and the States maternity benefits are being paid. On the whole, however, we have left sickness insurance very largely to individual

initiative and private enterprise. The result is that most persons, and particularly those who are in greatest need, are unprotected. Some employers have established private insurance plans for their employees, but they do not begin to furnish any real mass protection. An encouraging trend of a compulsory sort in the field of sickness insurance is the inclusion of certain occupational diseases within the scope of workmen's compensation legislation in some States.

Insurance for old age. The risk of dependence upon others in old age is the dread, and sometimes nightmare, of countless persons. And yet the great majority of persons over sixty-five years of age are partly or wholly dependent upon others for support. Those with sufficient income during the most active and productive years of life can protect themselves through the purchase of annuity insurance. An annuity insurance contract is an agreement between the insurance company and the insured in which the company agrees to pay the annuitant a stipulated annual sum until death. The annuity may be purchased by the payment of a lump sum or single premium. If the annuitant prefers he can enter into a contract for a "deferred annuity", the annuity payments to begin at a designated age. The premiums may be arranged either in a lump sum or on the limited payment plan. Excellent as is annuity insurance in accomplishing the purpose for which it was designed, only comparatively few persons are in a position to take advantage of it, and many of these either neglect the opportunity or think they can invest and protect their savings more advantageously themselves.

Old age is a problem which modern industrialism has greatly accentuated. Men still young in years are often too old for industry. Many men early in life are told that their "services are no longer needed". If a man past forty-five is without a regular job, he usually has great difficulty in getting one "on account of his age". Children have often been looked upon as old age insurance, but children often prove bad insurance. Straight non-contributory pensions and compulsory insurance have been the social solutions of the problem most commonly proposed.

Pensions, which are non-contributory because the recipient himself pays nothing directly toward them, may be provided either by industry or business itself or by the government. Some of the largest

and strongest corporations in the United States have established private pension plans during the past generation. In 1935 about 4,000,000 persons were covered by such plans, a few of the pension plans, however, calling for contributions from the employees. The establishment of private pension plans was prompted by the desire to reward long and faithful service and at the same time to enlist loyalty to the organization by giving employees some "stake" in the enterprise. The amount of the pension may vary with the length of service and the wages received. Most frequently it is a percentage of the compensation received during the final years of employment. The disadvantages in private pension plans are that they are not universal, that some of them were not financially sound and in times of economic stress have had to be discontinued, and that most of them contain no real guarantee of permanence and certainty that the pensions will be paid.

Alongside of private pension plans old age pensions provided by the State have gradually grown up. More than thirty States had enacted old age pension laws by 1935. Some had made special provision for certain employees such as teachers and civil servants. Municipalities had provided pensions for policemen and firemen. The United States government had set up its Federal Employees' Retirement system in 1920 for all employees under the classified civil service. Employees, however, must contribute to the pension fund. The foundations for a much more comprehensive system of old age assistance in the form of both pensions and insurance were laid by Congress when the Social Security Act of 1935 was passed. As far as pensions are concerned, the act provides for emergency federal grants to States to assist them in caring for needy persons over sixty-five years of age or for those who will attain this age before the regular contributory old age insurance plan becomes effective. The free pension section of the act (Title I) authorizes federal grants that may match the contributions of the States, when the combined federal-State total does not exceed \$30 per month for each pensioner. The maximum grant of the federal government in any case, therefore, cannot exceed \$15 per month. The States may pay more if they wish.

More important in the plan than the temporary free pensions are

the contributory pensions, which in part at least are based upon insurance principles. Through a so-called "income tax" on employees and a "pay-roll" tax on employers the permanent system of old age pensions or insurance is to be financed. For both employees and employers the rates, starting in 1937 at 1 per cent, are to be advanced in three-year intervals until 1949, when the contribution of each is to stand at 3 per cent. Monthly pensions are payable beginning in 1942 for each qualified worker who retires at age sixty-five. The act does not provide pensions for anyone who retires prior to sixty-five. The amount of the pension will range from \$10 to \$85 per month, varying with the total amount of wages received by the prospective pensioner after December 31, 1936, when the contributory payments begin. In the event of death before retirement, $3\frac{1}{2}$ per cent of all wages received beginning January 1, 1937, are payable to the estate of the insured worker. When death comes after retirement the same percentage of all wages received less the total amount returned in annuities will be paid as a death benefit. Pensions thus are payable out of a fund created through the joint contributions of employers and employees. It has been estimated that about 30,000,000 workers will be benefited by the act. Certain classes of workers, notably farm laborers and domestic servants, are ineligible under the act, largely on account of the difficulty of computing their exact wages. Governmental employees are also ineligible, many of them being provided for through other pension systems. Furthermore, no tax will be imposed on that part of anyone's wages over \$3,000 per year. There is no doubt that the Social Security Act will give aging workers some relief from the financial worries of old age. Young workers coming under the system, and remaining through most of life in the lower wage scales, can look forward to a pension which is a substantial percentage of their monthly wages. A man beginning work at age twenty, for example, and continuing in one job or another until sixty-five, if he averages a monthly income of \$100, will be entitled under the existing rates to a monthly pension of \$53.75 for the rest of life.

The system of old age pensions or insurance, which the United States government has just undertaken in a comprehensive way, has been in process of development in various European countries for

more than half a century. Germany and Great Britain again are notable examples. The German system of invalidism and old age insurance covers most of the country's wage-earners. Employees and employers regularly contribute equal amounts, and the government adds a subsidy. The British system began in 1908 as a straight non-contributory pension to those over seventy years of age and qualified to receive it; later (1925) the system was modified to apply to persons sixty-five years of age and contributions from both employers and employees were provided. In one form or another, both in the United States and in Europe, old age and other forms of social insurance have come to stay as parts of the industrial system.

RISKS OF PROPERTY

For most of the ordinary risks of property an appropriate form of insurance has been developed. The chief types include protection against loss due to fire, wind-storm, burglary (theft and larceny), marine accidents, and many other casualties and risks, such as damage done by and to automobiles, the breakage of plate glass, the explosion of steam boilers, unknown defects in the title to property, and dishonesty and negligence on the part of the officers and employees of a business enterprise. All such risks, and other similar risks, are insurable. They are widely distributed within the business community. They are of sufficiently frequent occurrence to make protection desirable and at the same time are statistically measurable so that the probable cost of such insurance can be calculated. The contingent events against which property insurance is written do not occur with the regularity and certainty of death in the case of life insurance policies. There is sufficient accumulated experience, however, concerning the property hazards involved, and the losses sustained, to make possible the determination of proper rate schedules. These will vary widely on account of the inherent nature of the particular hazard and various factors affecting it. Property insurance rates of all kinds are frequently revised as experience demonstrates that the existing rates are either unreasonably high or too low to cover the losses involved. To protect themselves against crushing losses property insurance companies generally resort to

reinsuring some of their risks in other companies and thus distributing the risks. Naturally they reduce their own earnings by this procedure, but at the same time they procure greater stability for themselves and are enabled to write policies for larger amounts covering any particular risk.

RISKS OF BUSINESS

The "entrepreneurial" risk in business is of course unavoidable and inescapable. Risk-taking is the essence of business. Entrepreneurs, whether operating as sole proprietors or organized in partnerships and corporations, assume the risks in the hope and expectation that they will be successful and will be rewarded by profits. Certain characteristics of modern business have accentuated the element of risk in business enterprise. Industrialized production is essentially "round-about" production, which means that relatively large amounts of capital are tied up in it. A modern plant for the manufacture of steel, or almost any of the plants of the heavy goods industries, represents a large capital investment, the ultimate value of which depends upon the successful termination of long-drawn-out processes of production. Some industries are chronically in the "prince or pauper class", showing large profits or heavy losses through the fat and lean years respectively of the business cycle. Business risks have also grown heavier as production has shifted more and more from the custom-order variety to the speculative sort. Heavy commitments must be made and production itself must be carried on in advance of demand and on an estimate of it. Plants do not operate at near-capacity except as orders for their goods warrant such production. But it costs a good deal of money even though they stand idle, on account of the heavy investment in them and the constant inroads of depreciation.

The incidence of such business risks properly falls upon the entrepreneurs who have chosen to shoulder them. If the entrepreneur is to find justification as a distinct factor in production, it is through his assumption of socially necessary risks. Naturally, however, he seeks to circumscribe his risks as much as possible and to avail himself of any aid that he can get in bearing the risks that are inherent

in his business. In the case of large corporations with ample resources, elaborate statistical and analytical departments have been established for the purpose of studying business trends. If the future can be even partly foreseen, more intelligent business commitments of all sorts are possible. To aid business men in the more successful discharge of their risks a number of well-known research and commercial organizations make a business of supplying them with a sort of forecasting service, in which market trends are analyzed and the impact of probable economic and political events is estimated. Other organizations supply the credit rating of present and prospective customers. Soundly conducted businesses themselves seek to "cushion" the shocks of adversity by building up reserves in times of prosperity for use during periods of depression. Companies that went into the great depression of the thirties strong in working capital have for the most part been able to weather the storm. Most corporations have had to draw upon their cash reserves and surplus to make such dividend payments as were possible during the depression. The existence of such dividend reserves, even though soon depleted, helped their recipients materially in carrying many risks in a period of exceptional business uncertainty. Dividend reserves, functioning as shock-absorbers, have suggested to many the desirability of comparable unemployment reserves to soften the jolts on the wage-earner during periods of depression.

Although the risks of business must principally be borne by entrepreneurs, however wisely or unintelligently they accomplish the task, some business risks can be shifted to other special risk-takers. Property risks of many kinds can be insured. Some businesses carry life insurance policies protecting themselves against the loss by death of officers and employees they regard as indispensable. An interesting development in the field of business risk insurance is the insurance offered against losses due to bad weather occasioned by rain. Business promoters of out-of-door events such as athletic sports, races, prize-fights, fairs, and expositions often find it desirable to carry some rain insurance. Baseball games scheduled on holidays or other days when large crowds are expected may be insured against bad weather which might cancel the games or deplete the crowds. Summer hotels sometimes insure themselves against bad

weather over week-ends, and department stores do likewise on the days of important advertised special bargain sales. Still another device for shifting certain types of business risks is presented by what is known as hedging. A miller buying wheat outright for manufacture into flour, the price of which will be influenced when he sells it by the then prevailing price of wheat, runs the risk of a fall in prices. Since he wishes to confine his business operations to milling and to eliminate if possible the hazards due to changes in the price of wheat, he may protect himself by hedging. When he buys wheat for immediate delivery to himself, he also sells wheat in the speculative market for future delivery to others. If the price of wheat subsequently falls, he loses on the wheat that he bought for milling, but he gains a corresponding amount on the price of the wheat he sold in the speculative market, since he sold it at the higher price and can himself buy it for delivery at the lower price. Hedging is an attempt to play safe and to eliminate some business risks.²

RISK OF UNEMPLOYMENT

One of the greatest risks in modern industry, which has received rather belated general recognition, is the risk of unemployment. When widespread unemployment is long-continued, its human hardships are so severe and its disastrous effects upon the entire economic system so pervasive, that the desirability of greatly reducing the risk of unemployment becomes evident to all. A widely accepted definition of unemployment has been offered by the British authority, B. Seebohm Rowntree: "A person is unemployed who is seeking work for wages, but unable to find any suited to his capacities and under conditions which are reasonable, judged by local standards."³ The definition excludes from the ranks of the unemployed those who are unemployable for physical or psychological reasons, but includes the labor unionist who refuses to work for wages he regards as unreasonable even though work might be available at such rates. The magnitude of the problem of unemployment is evidenced

² For further discussion of hedging cf. Chapter XVII, "Organized Markets", pp. 437-439.

³ B. Seebohm Rowntree and Bruno Lasker, *Unemployment: A Social Study* (London: Macmillan and Co., Limited, 1911), p. xiii.

by the fact that at one time during the present depression, in the United States alone, about 15,000,000 normally employed persons were unemployed, representing nearly one third of all those gainfully employed. The severe consequences of such extensive unemployment, particularly when protracted, are revealed by the further fact that in the United States, long hailed as the land of boundless opportunities, approximately one out of every six persons in the total population was the recipient of some form of public relief. Not merely the mitigation of the evils of unemployment but the regularization of employment itself constitutes one of the greatest economic and social problems of modern industrialism.

Causes of unemployment. To help solve the problem and find the most effective remedies, rather than mere palliatives, many earnest and competent students of the problem have searched for the underlying causes of unemployment. These of course are multiple, and consequently there is no single remedy. It is frequently asserted that the only real cure for unemployment is employment, which is true enough but not particularly enlightening; the problem is how to provide it in times of economic stress and how to make more steady the fairly general employment of periods of prosperity. It is well to remember that even in prosperous years we have a normal number of unemployed persons in the United States that approximates two millions. The number is an estimate because there are no accurate figures of unemployment registration. The personal composition of the group changes from time to time, but the total remains substantially the same.

The out-of-work sometimes the unemployable. Persons out of work are sometimes unemployable for personal reasons, and so cannot strictly be considered unemployed under the definition previously cited. They may be too old to hold jobs. Physical or mental disabilities may make them temporarily or permanently unable to work. They may be chronically "work-shy". Such persons call for relief or rehabilitation before there can be any opportunity at all for employment. There is a considerable number of casual laborers who work intermittently by choice or habit; they work at odd jobs for a few days and then are "on the bum again". The migratory workers that invade our wheat fields in the summer and our lumber

campers in the winter are not trained for regular employment. Others were unfortunate enough early in life to go to work at jobs that led them nowhere, and they later became the derelicts of our industrial system. In most of these groups of persons there are qualities which unfit them for steady employment, even if it were available. Unemployment is a state of enforced idleness on the part of persons both *able* and *willing* to work but unable to find a suitable opportunity.

Changes in industry. Seasonal, technological, and other economic changes in industry itself, entirely beyond the control of the workers affected, are responsible for a great deal of unemployment. Fruit and vegetable canning, confined as it is to the summer months, is a wholly seasonal industry. So is the extensive summer or winter resort business. Most industries have a seasonal peak, during which there is greater activity and employment than at any other time. Natural causes, such as the weather in the case of agriculture and construction, or social customs, such as Christmas shopping, may be responsible for this. In general, business is at a peak during the spring and fall and duldest during the summer and winter. Climate affects the human urge to activity, and with it the peaks and valleys of employment.

Certain technological changes in industry may at least temporarily increase unemployment. All through the period of the industrial revolution, the introduction of new machines and processes has made some trades obsolete. While new ones have usually developed, this was of little comfort to the displaced worker unless he could find the new trade and qualify for it. Moreover, many technological changes have not only displaced workers but also enabled industry to produce as much or more than before the change was made. Changes in agricultural methods since the World War are a notable illustration. In the field of industry organized labor has sought to control the introduction of new machinery as a means of protecting the jobs of the workers. From the social point of view unemployment due to technological changes is only temporary. Such changes are made in order to secure more efficient production. More efficient production usually means lower prices. Lower prices are apt to stimulate greater demand for the commodity in question, or to release purchasing power for other commodities. In either case em-

ployment will increase in the long run. But from the individual point of view these technological changes may come so swiftly and repeatedly that many workers are left stranded. It takes time for the long run to materialize and for displaced workers to be reabsorbed by industry.

There are still other economic changes within industry which affect employment. Particular industries flourish for a time, then decline and perhaps decay. The saddlery and bicycle industries declined with the coming of the automobile; the phonograph with the radio. This necessitated shifts in workers. Industries may migrate from one part of the country to another on account of easier access to markets, to raw materials, or to cheaper labor. This inevitably means unemployment for some who were previously employed. The reorganizations and consolidations of business units usually result in some unemployment.

Cyclical fluctuations of industry. The great peaks in unemployment, however, are not brought on by these seasonal, technological, and economic changes within industry itself. Rather they are associated with the cyclical fluctuations of industry.⁴ Business, as every one knows, has its ups and downs, its alternating periods of prosperity and depression. General employment is characteristic of the former and widespread unemployment of the latter. A steady decrease in the number of the unemployed is one of the surest signs that a country is well on the road to recovery from depression. The last four major depressions in the United States have brought on our greatest volume of unemployment—the depressions of the seventies, nineties, twenties, and thirties. In the primary post-war depression of 1920–1921 it is estimated that more than 5,000,000 persons were unemployed. In the secondary post-war depression which began in the fall of 1929, the number of unemployed has been placed at about 15,000,000. In periods of depression production and consumption are out of gear. The purchasing power that comes through the exchange of commodities and services is sharply decreased. With curtailed markets for goods part-time work and unemployment ensue, which aggravate the difficulties of the period. It is these periodic

⁴ For discussion of the nature and causes of business cycles and their effects upon unemployment, cf. Chapter XXIV, "Business Cycles".

fluctuations of industry which are the cause of the greatest volume of unemployment.

Existence of labor reserves to meet peak demands of industry. Industrial plants tend to collect about themselves a reserve supply of labor to meet the peak demands of their greatest prosperity. When the dull season or a depression comes, large numbers of these "industrial reserves" are laid off to await the coming of better times. They are not entirely free to seek work elsewhere because their mobility is circumscribed by the homes they have established. Even if they were, similar plants in which they could work at their trades are apt also to be experiencing a slump and to have no need for additional labor. Consequently these labor reserves become "hangers-on", swelling the army of the unemployed whenever economic conditions necessitate a slowing-down of the wheels of industry.

Means of reducing the risk of unemployment. For reducing the risk of unemployment and mitigating its evil effects four measures have received major consideration: the establishment of a comprehensive system of labor exchanges, government employment through systematic distribution of public works, the stabilization of industry itself, and compulsory insurance against unemployment.

Labor exchanges. Since unemployment always means a lack of balance or equilibrium between the demand for and supply of labor, and because this maladjustment is sometimes local rather than general, it has been proposed to establish in each industrial country a national system of employment or labor exchanges. The idea is to match the surplus of labor in some localities against the shortage in others. Established homes and local ties may prove a handicap in effecting a transfer of workers, but there is always a considerable percentage of workers upon whom such ties rest lightly. Private employment agencies, which charged a commission, and the employment bureaus of labor organizations, which rendered the service to their members, had blazed the trail to unemployment prevention. But they operated in too narrow a field and did not reach the masses. A score of the American States—New York, Massachusetts, and Wisconsin among them—had prior to the World War established systems of free public employment offices. The federal gov-

ernment did likewise under the spur of war-time necessity, but after the close of the War the United States Employment Service almost starved to death for lack of funds to maintain its work. The Wagner National Employment System Act (approved June 6, 1933) revived the service and supplied it with the life-blood of fairly adequate appropriations. The United States Employment Service aims to co-ordinate the activities of the States in this field, aiding them with funds on a dollar-for-dollar basis, and to pioneer in States that do not have systems of their own. National systems of labor exchanges have been in operation for many years in Great Britain, Germany, France, and other European countries. Excellent as is the limited service which employment exchanges can render, such labor exchanges are no real solution of the unemployment problem. All that even a comprehensive national system of labor exchanges can do is to bring jobless workers quickly and economically into communication with such opportunities for work as already exist. Although invaluable agencies for relaying information concerning jobs and counseling concerning means of transfer to them, labor exchanges do not and cannot create new jobs.

Government employment on public works. Perhaps the most strongly urged means for stabilizing employment is necessary public works. The intelligent and deliberate planning ahead of necessary public works for execution during periods when private industry is not demanding the full labor force of the country has long been advocated as the most promising method of combating unemployment. No American government, however, State or federal, has ever been ready with such a plan when depression overtook us. Under the administration of Franklin D. Roosevelt, which was faced with the necessity of fighting the greatest unemployment in our history, the philosophy of public works became familiar to all even casually acquainted with the problem.

But a dozen years earlier during the primary post-war depression President Harding's Conference on Unemployment just as unequivocally endorsed the long-time planning of public works. The report in part stated:

When public works are done in greatest volume during periods of active industry the same men and material are being competed for by both public

and private employers. The inevitable result is to raise the height of the crest of the wave of cyclical business inflation and to cause a greater crash when the heightened wave breaks, as it always does.

In a growing country like the United States the aggregate volume of public works of cities, counties, states, and of the federal government is so great that if a larger proportion were executed in years of depression than in years of active industry a powerful stabilizing influence would be exerted. In the past, however, public works officials have felt poor when business was depressed around them and conversely have often executed their chief undertakings when the contagious enthusiasm of captains of industry and of the general public has hailed a period of prosperity at hand. . . .

Certain works of the federal government, such as reclamation, flood prevention, river and harbor work, roads and public buildings, are peculiarly suited for consideration as large undertakings covering a long period and capable of elasticity of execution to synchronize with cycles of business depression. . . . Available estimates show that if 20 per cent of ordinary necessary public works were deferred each year and the accumulation executed in a year of depression occurring once in 10 years, the lifting power of public works would be at least one-third the dead weight of such a depression as the present.⁵

No ambitious public works program, however, was either undertaken at once or even seriously planned for the future, although a beginning was made by the federal government in 1930. It remained for the Roosevelt administration, first with an appropriation exceeding three billions and later with another in excess of four billions of dollars, to work out the idea on a large scale. The Public Works Administration, the Civilian Conservation Corps, the Civil Works Administration, and the Works Progress Administration are the better-known governmental agencies set up to translate the idea into action. Highways, streets, grade-crossing elimination, rural rehabilitation, rural electrification, reforestation, flood control, prevention of soil erosion, deepening of rivers and harbors, development of water-power, housing, and construction of public buildings are the outstanding projects to which the governmental agencies devoted their energies and funds.

The thought behind advocacy of public works as a means of controlling unemployment runs something like this: public works will provide direct employment for those that secure the jobs; they will

⁵ *Report of the President's Conference on Unemployment*, October, 1921, pp. 96-97.

provide indirect employment because materials will be needed; the wages paid, directly and indirectly, together with other outlays, will stimulate business as a whole and help revive industry. If public works can be made to synchronize with periods of slack demand in business and industry, they may be expected to have a stabilizing effect upon employment. It is obvious from this argument that if public works are to have their maximum preventive effect upon unemployment their proper timing is the essence of the matter. The electric spark of a motor must be accurately timed if the machine is to move along with full power. So it is with public works in relation to general business activity. Without such timing the stimulus to business in general may prove only temporary, the industrial machine will continue to be stalled, and the public works expenditures will amount to little more than "work-relief".

Stabilization of industry. Both responsibility and opportunity for the partial stabilization of employment rest upon industry itself. Something can be done through the coöperation of employers, employees, and the buying public in the prevention of some unemployment. The dovetailing of seasonal industries under a single management offers one such possibility, the coal and ice business being a familiar example. Another possibility of spreading work somewhat more uniformly through the year lies in the stimulation of buying by the consuming public through advertising and attractive prices. Whatever stimulates business in a normally slack season will help to make employment more steady. Special bargain sales of one kind or another are now regularly advertised during every month of the year. An attempt is thereby made to develop a more steady demand and to reduce "rush orders". Still another possibility consists in anticipating future orders by manufacturing goods in advance during the seasons of slack demand. This of course increases the manufacturer's inventories and puts an additional drain upon his working capital. It also requires careful estimates of what the future demand and probable prices will be. Finally, the reduction of "labor turnover" offers some possibility of stabilizing employment. Haphazard methods of hiring workers and of assigning them to their jobs have in the past resulted in frequently "hiring and firing" during the course of a year a labor force several times the size

of the force needed if employment were steady. Personnel departments skilled in the selection, assignment, and training of workers have materially reduced labor turnover in many establishments and at the same time improved the efficiency and morale of the workers.⁶

Unemployment insurance. Whatever labor exchanges, government employment on public works, and the self-stabilization of industry may accomplish in reducing the risks of unemployment, they will not eliminate unemployment altogether. It takes time for labor exchanges to function and for public works to get under way. Business and industry in a competitive society can hardly be sufficiently stabilized to cope unaided with the major unemployment hazards. To fill the gap unemployment compensation or insurance has commended itself to the thinking of many persons and has been provided through legislation and administrative agencies.⁷ Just as a business may for a time pay unearned dividends on its capital stock by drawing on its accumulated reserves, so it is argued businesses should at least for a time pay unemployment compensation benefits to workers who have lost their jobs through no fault of their own. If such payments are a charge upon the industry, in part or in whole, they will constitute a powerful incentive to exhaust every possible means to stabilize employment and to eliminate or reduce the necessity of making unemployment payments.

Unemployment insurance is based upon the idea that unemployment is not the fault of the individual but rather of the industrial system; that complete loss of the worker's purchasing power is a detriment not only to him but also to economic society. Voluntary unemployment compensation plans were developed by European trade-unions and in the United States have been set up by a few progressive employers' and employees' associations. The plan of the

⁶ For full discussion of the whole subject of the regularization of industry in relation to unemployment cf. John B. Andrews, "A Practical Program for the Prevention of Unemployment in America", *American Labor Legislation Review*, V (1915), 176-192; Lewisohn, Draper, Commons, and Lescotier, *Can Business Prevent Unemployment?* (New York, 1925), Ch. II.

⁷ The term "insurance", if used strictly instead of loosely, is a misnomer, because the risks of unemployment are not predictable and calculable. "Unemployment compensation" or "benefit" describes the plan more precisely, but the term "insurance" has become established in popular usage.

Procter and Gamble Company is non-contributory as far as the employees are concerned. A notable example of a voluntary contributory plan is furnished by the agreement between the Amalgamated Clothing Workers' Union and the Chicago Industrial Federation of Clothing Manufacturers. Both employers and employees contribute to the fund which is jointly administered by them. But the conspicuous shortcoming of voluntary plans is that they merely scratch the surface of the problem.

Great Britain led the way in 1911 with the establishment of a national compulsory insurance system. The original act applied only to a limited number of trades, but in 1920 the scope of the act was enlarged to cover the greater part of the working population. No more trying period for the inauguration and conduct of such a social experiment can very well be imagined than the quarter-century that included the World War and one of the most severe and prolonged depressions in industrial history. But the system is still in operation. It is a weekly contributory plan under which employers, employees, and the government make equal contributions ranging at present (1935) from two pence to ten pence each for various classes of workers. Contributions of employers and employees are collected through affixing stamps to an insurance stamp book with which each employee is provided. The stamps are sold by the government through the post-offices. The employer affixes the stamp which represents the joint weekly contribution of himself and his employee, deducting the worker's contribution from the weekly wage. The governmental contribution is added to the fund as a whole. If a worker leaves a given employer, his insurance stamp book goes with him. It must be deposited with a labor exchange office until he secures another job. If he remains unemployed, after a short waiting period he is entitled to insurance benefits, which at present range from five to seventeen shillings per week. The idea of limiting the number of benefit payments to one for every six weeks of contributions made had to be temporarily abandoned on account of the extraordinary demands of the depression. The government was forced to make huge appropriations to the unemployment fund. Because the direct connection between contributions and benefits has been obscured by the relief needs of the depression, the unemploy-

ment payments have come to be called "doles". There is no valid reason, however, for concluding that a contributory insurance system, once fairly started, would not materially help in meeting the needs of an ordinary unemployment situation.

In the United States Wisconsin was the first State to enact a compulsory unemployment insurance law after years of public discussion and legislative debate. Enacted in 1932, the insurance plan provided by the law was put into operation July 1, 1934, with reference to employers' contributions and July 1, 1936, as far as unemployment benefits are concerned. Changes were made in the Wisconsin law to conform to the Federal Social Security Act of 1935. The Wisconsin plan places the entire burden of providing the insurance fund upon industry itself. Every employer of eight or more persons, unless specifically exempted, must contribute 2 per cent of his pay-roll to a State unemployment reserve fund administered by the State Industrial Commission. For 1938 the standard contribution rate becomes 2.7 per cent, and thereafter it may fluctuate between zero and 4 per cent, as determined by the employer's own contribution and benefit experience. Whenever at the close of a calendar year an employer's "reserve percentage" (which means the net accumulated contributions stated as a percentage of the annual pay-roll) is no less than $7\frac{1}{2}$ per cent and no more than 10 per cent, the employer is required to contribute only 1 per cent of his pay-roll for the next calendar year. When his reserve percentage is 10 per cent or over, no contributions at all are required for the ensuing calendar year. Separate accounts are set up by the Wisconsin Industrial Commission for each employer. Each business builds up its own unemployment compensation reserve fund, which will be used exclusively to pay benefits to its own workers when it becomes necessary to lay them off. It is accordingly directly to the interest of every employer to stabilize employment within his own business if he possibly can. Unemployment compensation is fixed at 50 per cent of the full-time weekly wages, with a minimum weekly benefit of \$5 and a maximum of \$15. The longest period of benefit payments under the present Wisconsin law is thirteen weeks; the period varies with the employee's compensation and the number of weeks of employment that he had had during the year preceding his most recent week of em-

ployment. The Wisconsin plan of unemployment compensation emphasizes the obligation of the employer to his own employees and furnishes a financial incentive to regularize their employment. Doubtless some unemployment will be prevented in this way. Those who are successful in preventing it will not be called upon under the Wisconsin plan to subsidize the shortcomings of those that fail. Pooled unemployment reserve funds in contrast make the employer who furnishes steady work help carry the unemployment costs of those that do not. While segregating the unemployment reserve funds of each employer provides the maximum stimulus to the employer to stabilize employment, it is open to the criticism of not spreading the risk in accordance with sound insurance principles. A number of other States, notably New York and Ohio, adopted unemployment insurance plans of their own.

The Social Security Act passed by Congress in 1935 makes possible unemployment insurance on a national scale. Unlike the contributory old age insurance features of the same law, unemployment insurance does not call for any contributions from the workers. The burden is entirely upon the industry. Funds are provided through the imposition of an excise tax upon the pay-rolls of employers of eight or more persons. The pay-roll tax begins at 1 per cent in 1936, rises to 2 per cent in 1937, advances to 3 per cent in 1938 and remains there for subsequent years. The act provides an unemployment compensation system which calls for the coöperation of the States with the federal government. Unemployed workers will receive compensation only in States that have established unemployment insurance plans. Employers will pay the tax to the federal government, however, whether the States within which they operate have such systems or not. This will doubtless stimulate the passage of the necessary laws in every State of the Union. Employers paying taxes to State unemployment funds will receive credit up to 90 per cent of what they owe the federal government under the law. The Social Security Act allows the States very great latitude in setting up systems to meet their own particular requirements. During periods of unemployment benefits are to be paid in accordance with regulations adopted by the several States.

Both the proponents and opponents of unemployment insurance

agree that greater security for the workingman is a desirable social objective. They differ in their appraisal of the means to this end. In the long run the consumer of the products of industry will have to pay the bill. But it must not be overlooked that the public must pay the bill for unemployment anyway—in relief or doles if not in compensation. There is little doubt that in one form or another the plan of unemployment compensation has come to stay. Whether the government will be able to invest and liquidate when needed the billions of dollars of insurance funds that will accumulate is one of the tantalizing issues of the future. The success of any system of unemployment insurance will probably turn on the measure of job assurance that economic society can offer. With a fair degree of stability in employment, insurance problems will prove manageable.

CHAPTER XVII

ORGANIZED MARKETS

Markets have existed ever since men began exchanging goods. But organized markets and marketing are comparatively modern, if not in origin, at least in development. For centuries social groups were largely self-sufficing. It is true that some groups possessed advantages in the production of certain goods which were highly coveted and traded their surplus for equally prized goods which other groups possessed. Such trade, however, was inter-group rather than intra-group, and distinctly supplementary to what was otherwise an autonomous economic life. Gradually, however, trade grew. The economic self-sufficiency of the household declined. Trade accelerated the evolution of economic society. Trade came into its own in the handicraft stage of our economic evolution—in the economy of the medieval town. Here production was no longer exclusively carried on for home consumption but for exchange in the market. Trade became intra-group as well as inter-group exchange.

Our organized markets seem to be the lineal descendants of the town markets of the Middle Ages and of the medieval fairs. The town market, held on a certain day each week, provided a convenient meeting place for the people of the town and of the surrounding country. Here they exchanged their surplus products; goods for the most part moved directly from the original producer to the consumer. The closest approximation that we have today to the old medieval town markets are the produce markets of our large cities. To these farm produce is brought from the surrounding country, and to these buyers from all over the city come to purchase their provisions.

The medieval fair was held periodically, perhaps once or twice per year, at places that marked natural cross-roads of commerce, or gathering places for large numbers of people for some special

purpose such as a religious festival. At these fairs, which variously lasted from a few days to several weeks, the important commodities of national and international trade were bought and sold. Fabrics of silk and wool, skins and furs, leather products and pottery, exotic spices, foodstuffs, and wines were common offerings. Merchants, who were professional traders, played much more important parts at the fairs than they did at the town markets. The large well-established fairs drew traders from great distances and proved a most important agency in facilitating the exchange of goods and in providing wider marketing areas. As trading institutions, modern fairs with their emphasis upon exhibitions and entertainment are mere shadows of the great medieval fairs. Those who criticize the obtrusive advertising and blatant commercialism of "world's fairs", however, such as the recent Chicago Century of Progress Exposition, forget the trade origin and purpose of fairs.

As the area in which goods could be advantageously bought and sold grew larger through the development of efficient systems of transportation and communication, specialization in production came to characterize the economic life of the world. But specialized production and its economies, which are the boast of our modern economic system, presuppose an equally efficient system of exchange. Unless there is a fairly steady market for their specialized products, it is futile for men to specialize. At no time in economic history have smoothly functioning markets, often world-wide in their ramifications, been as prevalent or as sorely needed as in our time, marked as it is by extensive and intensive specialization in production. So utterly interdependent have specializing producers grown that when markets break down economic chaos results. The nature of markets, their economic functions, and typical organized markets within which the price-determining operations of exchange are carried on constitute the main sequence of ideas in this chapter, devoted to showing the place of organized markets in our modern exchange economy.¹

¹ Typical markets are described in this chapter—the commodity market, the labor market, the loanable funds or money and capital markets, and the real estate market—in order to set forth the structural organizations within which the price-determining forces operate. What determines the prices in these markets is the theme of the following four chapters dealing with value and price, wages, interest, and rent.

NATURE AND IMPORTANCE OF MARKETS

Market-place versus market area. Ever since Mother Goose taught us all to repeat,

To market, to market,
To buy a fat pig,
Home again, home again,
Jiggety jig,

most of us have thought of a market as a *place* to which we could go to buy things, and in which other persons could sell things. Although the hog market has grown to be very important in some places, notably Chicago, the experience of most of us as buyers and sellers has been gathered in other market-places. Almost invariably, however, at least to begin with, we have associated the terms "market" and "marketing" with distinct places in which the business of buying and selling is carried on for the purpose of effecting desired exchanges. A retail store, a public market-place to which not only many buyers but also many sellers come, or a definitely localized exchange, such as the commodity exchange called the Chicago Board of Trade, typifies the market as a market-place for most of us.

Market-places are markets without any doubt, but a market is not necessarily restricted to a specific place of business at all. The essential characteristic of a market is that there be communication among the prospective buyers and sellers. Neither the buyer nor the seller, and not even the commodity itself, need be physically present to constitute a market. Purchases and sales may be effected by mail, telephone, telegraph, or radio, and only the title or legal right to the goods needs actually to be transferred. Markets may be properly described as the entire area within which the forces of demand for and supply of a given commodity or service interact in effecting exchanges and establishing prices. Wherever and whenever buyers and sellers are brought together, whatever the means for achieving communication, markets exist. The field of operation of some markets is sharply circumscribed; local labor, real estate, and bulky perishable commodity markets are illustrations. Other markets are almost world-wide in their field of operations. The

great international security exchanges, like the London Stock Market or the New York Stock Exchange, draw buying and selling orders from the remote corners of the world. The markets for great staple commodities like the metals, wheat, and cotton are composed of buyers and sellers scattered throughout the world, who pour their orders to buy or to sell into the offices of brokers connected with the established exchanges in London, New York, Chicago, or other trading centers. When men talk about the money market or the securities market without reference to a particular exchange, they are thinking of a market in the abstract rather than the concrete sense.

Importance of markets and marketing. Available markets set a limit upon the extent to which specialization in production can economically be carried. A system of production which makes use of enormous investments in capital goods and practises all the economies of large-scale production must have an efficient marketing organization and adequate market outlets or it will perish. In the custom-order stage in the development of economic society marketing precedes manufacturing: the order is placed before the commodity is made. While modern factories do not run, at least very long, without orders for their products, they do necessitate heavy expenditures in plant and equipment, and steady outlays for maintenance, in order to be always ready for production when orders materialize. Marketing provides the circulatory system of modern production. Success in marketing their products makes businesses "going concerns" and gives them "going concern value". Because of the vital importance to every business of getting its products to move in the arteries of trade and commerce, a large part of the thought and energy of business managements must be devoted to marketing problems. No matter how efficient the making of goods, unless it is supported by equal efficiency in the marketing of goods the business will fail to prosper. How important marketing is in the economic life of a people is evidenced by the fact that in the United States alone the value of the trade of retail stores—which is only part of the total volume of trade, since there are other outlets and many "turnovers" between producer and consumer—was \$53,000,000,000 in 1929. The total volume of trade,

wholesale and retail, was several times this amount.² The United States Bureau of the Census also reports that a total of 6,081,467 persons were engaged in trade and 3,843,147 in transportation out of 48,832,589 persons reported as gainfully employed in 1930.³ Most of what is produced by any people must be marketed, and it takes a large percentage of those gainfully employed to do the marketing.

ECONOMIC FUNCTIONS IN THE MARKETING OF COMMODITIES

Since the existing economic system is so predominantly an exchange economy in which the ultimate outcome of the productive process of creating form utilities usually depends upon the creation of place, time, and possession utilities as well, it is important to differentiate the economic functions discharged in the marketing of commodities. In general it may be said that these pertain to changing the place, time, and possession relations of goods to desiring human beings. All engaged in such marketing activities are as truly productive as those engaged in agriculture and manufacturing, the immediate objective of which is the creation of form utilities. Analysis of the process of marketing reveals that there are a number of essential marketing functions.⁴

The fundamental function of marketing, to which all others are subsidiary and supplementary, is *selling*, which involves transfer of ownership rights from seller to buyer. In some markets only such legal rights are bought and sold; the physical commodity itself may be stored in distant warehouses and merely be represented by sample. In some cases it may not even be in existence at the time of sale. At times that which is sold may represent an equity in near or remote properties. And then again, the good to be transferred may be physically present in the market, as it is in most retail

² *Fifteenth Census of the United States, 1930, Distribution*, Vol. I, *Retail Distribution*, Part I, p. 14.

³ *Abstract of the Fifteenth Census of the United States, 1930*, p. 305.

⁴ L. H. D. Weld, "Marketing Functions and Mercantile Organization", *American Economic Review*, VII (1917), 306-318; F. E. Clark, *Principles of Marketing* (New York: The Macmillan Company, 1932), Ch. II; F. E. Clark and L. D. H. Weld, *Marketing Agricultural Products in the United States* (New York: The Macmillan Company, 1932), Ch. II; Paul D. Converse, *Elements of Marketing* (New York: Prentice-Hall, Inc., 1935), Ch. III.

stores. Selling involves agreeing upon a price with the buyer at which transfer of title to the good may be made. It is such transactions of the market, involving the transfer of ownership rights at a price, that most deeply concern the economist, since they provide him with his fundamental unit of investigation. To explain the prices that come to prevail in market transactions is a large part of the economist's task. To effect sales at advantageous prices men have created an elaborate marketing technique, including personal salesmanship and advertising, designed to convince and persuade the buyer. Goods do not usually sell themselves, even though a good product is essential for the long-term success of any selling campaign.

Other marketing functions are essential to selling but subsidiary to it. They range all the way from the original assembling to the ultimate delivery of the physical good itself from producer to consumer. *Assembling* is that function of middlemen in which they acquire control of goods for purposes of sale. Such control over goods may be easily and simply acquired, as is the case when goods come from a single source or at most from a few sources, or it may be a laborious process involving collection of goods or the rights to dispose of goods from scattered producers all over the world. In describing the marketing process of assembling Weld has this to say:

When communities were self-sufficing, there was no need of collecting or gathering commodities from distant places. But with the development of territorial specialization both in agriculture and manufacturing, the assembling of commodities from various places became a more or less difficult function to perform. The term "assembling," as used here, does not mean the actual physical transportation of commodities from one place to another, but rather the seeking out of sources, the making of business connections whereby commodities may be bought, and the study of market conditions so that they may be bought at the lowest price possible. Assembling therefore involves all the services connected with *buying*. Many wholesale houses assemble goods from different parts of the country—even from all corners of the earth.⁵

Standardization (grading or rearrangement) of the goods assembled for sale is another important marketing function. It is the process of sorting, grading, or classifying goods in accordance with established standards. Standard grades have been established for

⁵ *Loc. cit.*, p. 307.

such agricultural products as wheat, cotton, and coffee. Wool is classified as to quality. Gasoline must conform to certain tests. Many manufactured goods and processed foodstuffs are marketed in standardized packages. Standardization facilitates marketing because goods can be sold by description rather than by time-consuming inspection. Of course many consumers' goods do not lend themselves to such standardization, and some defy all attempts. Stylish goods, while the direct antithesis of standardized goods in some respects, may still conform to certain standards of quality.

Transportation and *storage* are other fairly obvious marketing functions. Transportation and storage agents in the productive process are the creators, respectively, of place and time utilities; they change the place and time relations of goods to human beings who desire them. Rubber in the East Indies needs to be transported to the United States or other countries to find its most advantageous and profitable use. Only through the indispensable function of transportation is it possible for the products of the uttermost parts of the earth to reach common markets and to contribute to human enjoyment. Few goods pass directly from the producer who raises or grows or makes them to the ultimate consumer. Some, like foodstuffs, are produced seasonally and must be stored by someone until such time as they are wanted. Storage makes possible a more even flow of goods to the market, more diversified consumption at all times, and greater stability of prices. The elevators that store the farmers' grain, cold-storage plants, the warehouses that store the stocks of manufacturers, and the retailers who fill their shelves are all contributing to a socially necessary marketing function.

Finally, *risk-taking* and *financing* are inescapable functions in the marketing of goods. The more circuitous the marketing process, the greater are the risks and financial costs involved. There are not only the ordinary risks incidental to the physical safety of any product, but there are also the greater risks of serious fluctuations in price and of unsalable supplies because of fundamental changes in the market. The marketing process is time-consuming because many goods travel a long way from their point of origin to their

final destination. Payments are usually deferred somewhere along the way. This involves the extension of credit. While banks and other financial agencies have largely assumed this function (they are financial middlemen in many of their activities), the initiative for procuring credit is usually taken by one or more of the marketing agents. Retailers extend credit to consumers, wholesalers may have to give credit to jobbers and retailers, and all of them repair to the banks. Credit is the life-blood of trade, carrying nourishment to all parts of the marketing system.

The organization and processes of modern marketing are bewildering to those uninitiated in their details. It is comparatively easy to visualize and understand the primary production of goods on the farm or in the factory and also the final delivery of goods to the consumer. But there is a vast and complicated organization that functions between. Retail merchandising is today done through general stores, department stores, specialty shops, chain-stores, mail-order departments of large retail establishments, regular mail-order houses, and directly by manufacturers and other primary producers themselves. Behind them stand many types of wholesale merchants (sometimes called jobbers), commission merchants, manufacturers' agents and brokers, finance houses and agencies, railway transportation, trucking, and shipping agencies, storage companies, delivery services and many more. Those who do not understand their functions very well are apt to denounce many of these agents as unnecessary and the chief reason for the high cost of goods to the final consumer. Experts in the field of marketing are ready enough to admit that there is much waste and inefficiency, but they rightly insist that the basic functions of marketing are as indispensable as the primary production of goods. Society must pay the necessary price for having goods in the forms wanted, where and when wanted, and in the possession of those who are to enjoy them. To eliminate some of the wastes and duplication of marketing agencies, and to procure both higher prices for the primary producer and lower prices for the ultimate consumer, coöperative marketing has been developed. The coöperative principle has been applied to both the selling and the buying of goods; there are tens of thousands of such "co-ops" in the United States alone. In many

European countries, including Great Britain, Denmark, and Germany, coöperative buying and selling has had a long and distinguished history. In coöperative marketing as well as in all other forms of marketing, and for that matter in every type of business enterprise as well, the limiting factor for successful operation is trained and experienced management. On the whole, however, it may be said that coöperative marketing has a most promising future both in the United States and abroad.

COMMODITY MARKETS

Marketing as a process for the transfer of ownership rights in goods, at prices mutually acceptable to both buyer and seller, can be best studied by means of a survey of a few typical organized markets. We are here primarily concerned with the structural organization of representative markets as a means of understanding the price-determining forces that operate within them.

The great produce exchanges are typical organized commodity markets, and convenient institutions in which to see the price-determining forces actually at work. In them gather prospective buyers and sellers, eager to buy or to sell on the most advantageous terms. Prominent among these long-established produce exchanges in the United States is the Chicago Board of Trade, organized in 1848, and today the country's leading grain market. Other well-known commodity exchanges are the Merchants' Exchange of St. Louis (founded in 1854), a leading fur market; the New York Cotton Exchange (1870); and the New York Coffee Exchange (1882). Exchanges in the same or different commodities are found in other American cities. In the discussion that follows, the Chicago Board of Trade is used as an illustration of a commodity market for the purpose of showing the types of transactions carried on and the prices established in them.

The Chicago Board of Trade furnishes a continuous market for grain. It is an incorporated association of grain dealers. The board itself only provides the physical facilities, and drafts and enforces the "rules of the game" under which the transactions in grain shall take place. During the crop-moving season in the fall, farmers sell

their grain to dealers, who store it in elevators and warehouses from which it gradually moves to the central markets and is bought up by millers who convert it into a variety of consumers' products. The grain itself may be represented in markets by warehouse receipts and may be sold on the basis of samples available for inspection or of standardized grades known to all dealers.

As a spectator seated in the visitors' gallery looks down upon the spacious floor of the exchange his attention is particularly arrested by a number of "pits". Each of these is a series of steps, arranged in octagonal form so as to leave a pit-like depression in the center. Dealers and brokers standing on the floor of the pit or on the surrounding steps leading down to it can easily see each other and transact their business. The largest and usually the most active of these pits is the wheat pit. The others are for corn, oats, and rye. Beyond the pits and directly opposite the visitors' gallery are numerous tables exhibiting samples of grain that have arrived in the Chicago district. This grain is bought and sold for immediate delivery. A network of telegraph and telephone wires converging upon the floor of the exchange facilitates the incredibly swift execution and confirmation of orders. A publication of the board states: "So highly geared is the service over these privately leased wires that it is possible for an order to leave Kansas City, Minneapolis, or another pivotal point, be executed by a Board of Trade member, and confirmed back at the point of origin within fifteen seconds."

Trading for immediate versus future delivery. Grain is bought and sold on the floor of the exchange both for immediate and future delivery. The dealers standing or moving about among tables on which are samples of grain, which has been officially inspected and standardized, are the buyers and sellers of grain for immediate or cash delivery. The buyers represent millers and other processors of foodstuffs. The sellers represent grain dealers who have been storing wheat since acquiring it from the farmers.

Wheat and other grains are also traded in for future delivery. Brokers dealing in July wheat are buying and selling wheat for delivery in July. The designation is derived from the month of delivery and not from the time of sale or harvest. "Futures" or con-

tracts for future delivery are bought and sold in the pits. To facilitate and accelerate trading, the brokers have reverted to the simplest and oldest language known, the language of signs. Offers to buy or to sell are indicated by the fingers of the hand held in a vertical position, each finger representing 5,000 bushels, the unit of trade on the exchange. If the hand held in a vertical position has the palm outward, it is an offer to sell; if the palm is held toward the person signaling, it is an offer to buy. The upraised hand, palm outward, all five fingers extended, means that the trader is offering to sell 25,000 bushels. The price code is equally simple. Prices are denoted by the fingers of the hand held in a horizontal position. The even cent, say at the prevailing price of ninety-five cents per bushel, is indicated by the clenched fist; one eighth of a cent more by one extended finger, and so on through various positions of the fingers for the complete price code.⁶ A motion of the hand, accompanied by an irrepressible shout, an answering nod of the head by some other broker, and the transaction is complete; it is just as binding as if the contract had been made in writing. Both brokers merely note the terms of the sale on their trading cards.

Selling short. The exchange facilitates two types of transactions: ordinary trading in grain as a commodity of commerce, sold for immediate delivery; and dealing in contracts calling for the future delivery of grain, which are apt to be speculative transactions. Dealings in futures are the more spectacular activities of the exchange, to which the cash grain transactions, however, are not unrelated. Speculators in future contracts are commonly known as "bulls" or "bears". A bull is one who buys in the expectation that prices will rise, hoping later to sell at a still higher price. The bull's habit is to "toss up". Bulls are said to be "long" of the commodity they have purchased. If a bull in the wheat market buys May wheat in March, he is speculating that by the time the May delivery date approaches he will be able to sell the wheat for a

⁶ The price code as stated by the Chicago Board of Trade is as follows: one finger extended, one eighth of a cent; two fingers spread apart, one fourth of a cent; three fingers spread apart, three eighths of a cent; four fingers spread apart, one half of a cent; four fingers and the thumb extended and spread apart, five eighths of a cent; four fingers and the thumb extended but pressed together, three fourths of a cent; hand clenched with the thumb alone extended, seven eighths of a cent; the clenched fist, the even cent.

higher price than the price at which he bought and thus to make a profit. A bear is one who sells in the expectation that prices will fall, and that before the date of delivery he will be able to buy grain at a lower price than that at which he sold, and thus to make a profit. The bear's habit is to "pull down". Bears are said to be "short" of the commodity they have sold. If a bear in the wheat market sells May wheat in March, he is speculating that by the time the May delivery date arrives he will be able to buy the wheat at a lower price than the price at which he sold and thus to make a profit. It is always a matter as to whether the bulls or the bears have more accurately gauged the probable trend of wheat prices. Bulls like "to squeeze the bears", which means to force them to buy at higher prices than they had anticipated in making good on their future contracts. Bears like "to rout the bulls" by forcing prices down and then buying what they need to make good their future contracts on their own terms. The innocent outsider known as a "lamb", who gambols (or gambles) in the market with "bulls" and "bears", is often "fleeced".

Dealing in futures is highly speculative. Bulls that go "long of the market" are pitting their judgment against the bears that "sell short". Selling short, which means to sell for future delivery what one does not own at the moment in the expectation that prices will fall, is often condemned. It is sometimes said that operations on the exchange ought to be confined to the actual traders interested in immediate delivery, and that its facilities should be closed to the speculators. It is argued that speculation has a disturbing effect upon prices, usually working to the disadvantage of both the primary producers and the ultimate consumers. There is no doubt that speculation often has just such a disturbing influence. The market is sometimes "rigged" to attract unsuspecting outsiders. When the market is artificially manipulated by professional speculators for the purpose either of advancing or depressing prices so as to make possible speculative profits, it accentuates fluctuations in prices rather than stabilizes them. Bulls occasionally seek to "corner" the market by buying up all that is offered of a commodity, like wheat, for delivery in a given future month. The apparent purpose is to compel those who have "sold short" to buy the wheat they

need for their contracted deliveries at greatly enhanced prices. Since the bulls control the supply, they are in a position to reap handsome profits at the expense of the bears. Similarly, the bears at times raid the market for the avowed purpose of demoralizing prices and of profiting by the difference between the prices at which they sell and subsequently re-buy. Such speculative manipulations often defeat their own purposes. But whether successful or not, these attempted corners and raids generate sweeping price changes which are contrary to the interests of legitimate trade.

Speculation, however, is not to be condemned outright. It may also have a stabilizing influence upon prices by equalizing demand and supply over periods of time. The physical supply of wheat in the United States, for example, is largely marketed by the farmers during the summer and fall months. There is a demand for wheat, on the other hand, throughout the entire year. If there were no speculative buying of wheat, its price would tend to be greatly depressed during certain months of the year with corresponding price accentuations at other times. This would prove of disadvantage to both the producers and the consumers of wheat. Speculation, when based upon an intelligent study of market conditions, may contribute something toward holding prices more steady than they would otherwise be. The speculator who sells short may increase the market supply of wheat at a time when the actual supply is not very great, and thus prevent prices from rising as high as they otherwise would. Subsequently, he may also prevent them from falling as low as they would without him and his kind, because he has to enter the market to buy wheat to cover his short sale. It must be conceded, however, that the stabilization of prices is accomplished only indifferently. Speculation tempts all sorts of market adventurers. Amateurs buy on whims and "tips". Professional speculators try to anticipate the larger swings of the market. The net result is often an exceedingly nervous or "jumpy" market with many minor advances and declines.

Hedging. Dealing in futures provides the opportunity for hedging. Hedging is an attempt to eliminate some of the speculative risks of business, but oddly enough the speculative market itself must be used to accomplish the purpose. Hedging involves both

buying and selling by the same person at about the same time. The buying may be done in the commodity market for immediate delivery, and the selling in the speculative market for future delivery. The practice of millers, who wish to restrict their business operations to the moderate profits they can make on the conversion of wheat into flour, offers one illustration of hedging. The miller who hedges is not a professional speculator; rather he is a trader who is willing to forego the opportunity of making speculative profits for the sake of escaping the possibility of speculative losses. Grain dealers, who buy the grain from the farmers and temporarily store it in elevators, may also protect themselves against losses by hedging.

Let us assume that in Chicago wheat is selling for \$1.25 per bushel, and that a grain dealer in the wheat belt of the United States has just bought 100,000 bushels of wheat at \$1 per bushel and has paid the farmers cash for it. The difference of twenty-five cents represents freight charges, the cost of handling, and a fair profit to the grain dealer. He wishes to make this business profit. But if the price of wheat should decline before he can market it in Chicago he may suffer a loss instead. Accordingly, to protect himself against such contingent loss he sells 100,000 bushels of wheat for future delivery at \$1.25 per bushel, the prevailing market price. He has now hedged and is safe against future price fluctuations of the wheat that he holds. When he sells the actual wheat in Chicago he at the same time takes in his hedge by buying a contract calling for the delivery of 100,000 bushels of wheat. If when he markets the wheat, the price he receives is still \$1.25 per bushel and he must also pay \$1.25 per bushel for the wheat that he sold for future delivery, it is clear that the two contracts perfectly offset each other. His only profit results from the difference between the selling price of actual wheat and what he paid the farmers for it, plus the costs of getting the wheat into the Chicago market.

But if the price of wheat for immediate delivery is \$1.30 per bushel, he makes five cents more per bushel than he had anticipated. At the same time, however, he must also pay five cents per bushel more in order to take in his hedge, for he had sold 100,000 bushels for future delivery at \$1.25. To acquire a futures contract calling

for the delivery of 100,000 bushels of wheat he must now pay \$1.30 per bushel. The extra five cents per bushel that he makes on the one contract he loses on the other. But he still has his non-speculative profit as a grain dealer, measured by the difference between what he receives and his cost of doing business.

If the price of wheat for immediate delivery is \$1.20 per bushel by the time the dealer can market it in Chicago, he loses five cents per bushel. But the hedge contract that he buys also costs him five cents per bushel less than the futures contract he sold at \$1.25 per bushel when he bought the wheat from the farmers at the outset. What he loses in the trade market, he now gains in the speculative or futures market through the hedging contracts in which he has participated. He still has the profit he counted on, however, when he bought the wheat from the farmers.

The opportunity of hedging in the market for futures makes it possible for grain dealers to allow for a narrower spread than they otherwise could between the prices they pay the farmer and the prices they expect to get in the central markets. If it were not for hedging the risk of price fluctuations between the buying of the farmers' grain and its final sale would have to be borne by the farmers in the lower prices they would receive. Hedging has the further advantage of transferring risks to a body of professional specialists most competent and willing to shoulder them.

LABOR MARKETS

Most of us are inclined to think of markets and marketing as pertaining only to the buying and selling of finished goods, usually commodities that are on their way to the final consumer. But markets and marketing are much broader than this. They include agencies facilitating the transfer of commodities at every stage of the productive process, the buying and selling of human services, the procuring of funds for much of the financing of business enterprise, and the leasing and sale of real estate.

Labor markets characteristically lack the high degree of organization that distinguishes commodity markets of the kinds just considered. But they are no less representative of markets. They

are organized to facilitate the buying and selling of human services for specified periods of time. A labor market exists wherever and whenever prospective employers and employees meet for the purpose of negotiating the purchase and sale of human services. Sometimes the market is local, small, and wholly unorganized. It may be located in some business office to which applicants come to present themselves in person for some work that has been advertised. Or it may be located at some factory gate or in the office of an employment manager where those responsible for the hiring look over and interview any prospective employees that gather at the appointed time. The labor market may also be large-scale and highly organized, such as is the case when representatives of one or more railway brotherhoods meet representatives of the railway managements and bargain collectively concerning the wage scales that shall prevail in railway transportation on a given system or on a number of systems. Both private and public employment exchanges have also been established to facilitate not only selling but also buying the services of labor.

The effective functioning of labor markets provides most persons with their opportunities for work and their daily bread. Successful sale of one's services means employment. Employment brings wages. Wages confer purchasing power over the goods of life. When employment fails in any large way, the whole economic system works badly. Labor markets, like commodity markets, result in the establishment of prices. The price of labor is known as wages. To the worker wages are his purchasing power; to the entrepreneur-employer they usually represent his principal item in the cost of producing any commodity for the market. Workers, employers, and consumers all are directly interested in the functioning of labor markets and the wage scales which are established by them.

REAL ESTATE MARKETS

Still another representative market is furnished by the land or real estate market. The use of land, represented by leaseholds, and ownership in land, represented by deeds conveying title, are regularly

bought and sold. Many of these transfers are negotiated directly between the interested parties. In many others the transactions are effected through real estate brokers. In the United States alone, according to the Census of 1930, nearly a quarter of a million persons were reported as directly engaged in the real estate business as the principal source of their livelihood. Like the commodity market, and unlike the labor market, the real estate market is dominated by middlemen. These find their principal activity in brokerage and derive their living largely from the sales commissions they collect. There have been marked tendencies in the United States for realtors to engage on a limited scale in construction, the plotting of urban subdivisions, the management of real estate properties, and the appraisal of land values.

It is estimated that land values, including the value of improvements, constitute nearly one half of the developed wealth of the United States. The transfer of real estate from one owner to another, and the whole business of real estate merchandising, are of course based upon the institution of private property. With property rights in land firmly established, men were free to lease or sell their rights. As transfers of title became less complicated (they are still far from simple) and the demand for land increased, the marketing of real estate became an established business.

Most real estate markets show a less continuous flow of transactions than either the commodity or labor markets. They are apt to be highly active, perhaps assuming "boom" proportions, or so inactive as to be described as "dead". It is the transactions of the market, however, that set the price of land. What is bought and sold in the land market is both the temporary use and the more permanent possession of the land. The determination of the price of land and its relation to other prices constitute one of the knottiest problems in economic theory and practice. The slow and inadequate functioning of land markets has far-reaching effects upon our economic life: investment businesses, including banks and insurance companies, find some of their assets frozen, and assessors of property for taxation purposes find it difficult to make fair appraisals of land values without the guide of an active market.

MONEY AND CAPITAL MARKETS

Of great importance to modern economic society is the functioning of the money and capital markets, through which the use of loanable funds is made available for short or long periods of time. When funds are needed for a relatively short period of time—say not to exceed six months—the money market stands ready to serve the needs of business. Banks are the most important, though not exclusive, agency supplying the funds. A wide assortment of loans and obligations is available. There are the “over-the-counter” loans or discounts which banks make to their regular customers, whose credit standing is thoroughly known to them. There are call loans payable at the option of either lender or borrower upon twenty-four hours’ notice. Collateral loans, supported by stocks and bonds, bankers’ acceptances, and commercial paper are other credit instruments in which the money market deals. The United States treasury is a frequent borrower in the money market, issuing treasury bills and certificates in return for the funds received. When more permanent or long-term investments are wanted, the capital market is ready to function. Investment houses, trust companies, savings-banks, and mortgage banks, as well as insurance companies, are the more important agencies supplying funds for long-term investment. The term “commercial banking” is frequently used to cover all the transactions of the money market, and “investment banking” to cover the transactions of the capital market.

The buying and selling of loanable funds by borrowers and lenders in either the money or the capital market result in the establishment of interest rates, which are the prices paid for the use of capital. The rate of interest tends to govern both the accumulation of capital and the direction of its flow for investment purposes.

SECURITY MARKETS

Closely related to capital markets, which are usually thought of as institutions facilitating *new* capital issues, are security exchanges, which provide ready markets for stocks and bonds already issued. Security trading has become centralized in a few exchanges. Only

in this way is it possible to provide a reasonably active market. Although there are now more than a score of security exchanges in the United States, the New York Stock Exchange does the bulk of the business. It is one of the two leading exchanges of its kind in the world, the London Stock Market being the other.

The New York Stock Exchange in organization and operations is typical of all security markets. It is still a voluntary unincorporated association, at present consisting of 1,375 members. The number of individual members stood unchanged at 1,100 from 1879 to 1929, when the membership was increased by 275. Only individual members are allowed to trade on the floor of the exchange. The members may deal in the listed securities either as principals or as agents. Membership in the exchange is usually acquired only through purchase, with the approval of the committee on admissions. That it is highly coveted is evidenced by the fact that in 1929 before the membership was increased 25 per cent the high price paid for a single membership was \$625,000. After the stock market crash in the fall of that year the price of an exchange seat fell off sharply, reaching a low price of \$65,000 in 1935.

The securities of the leading corporations are listed on the exchange. Initiative for listing must be taken by the corporations. The Committee on Stock List calls for a detailed statement of the financial condition of the issuing corporation and requires the regular publication of financial and operating statements. Registrars and transfer agents must be located in New York City. The securities must be seasoned. A listing fee must be paid, if the Governing Committee finally approves the application for listing.

Trading in listed securities takes place about stands or posts, of which there are twenty-two on the large floor of the exchange. Separate stands are assigned to groups of stocks, such as the steels, railways, railway equipments, and textiles. On December 31, 1935, there were 1,175 preferred and common stocks listed on the exchange. When, for example, orders to buy and sell 100 shares of United States Steel preferred at 112 are executed, a ticket is exchanged by the members participating in the transaction, showing that the one has bought and the other has sold the shares in ques-

tion. Employees of the exchange gather the price quotations at which securities are sold. The New York Quotation Company, a subsidiary of the exchange, supplies quotations to members of the exchange. The Gold and Stock Telegraph Company, a subsidiary of Western Union, distributes them to exchange-approved clients throughout the United States. Both utilize a ticker service, which is a telegraphic printing device. The financial pages of the metropolitan newspapers carry a daily report of the number of shares of each listed security sold, together with the opening, high, low, and closing prices. The total sales registered on the New York Stock Exchange reached a peak in 1929, when 1,124,661,800 shares were transferred. The daily average for that year was 3,864,817 shares, with one day during the crash when 16,410,000 shares exchanged hands, much the largest number in the history of the exchange. The year 1935 offers a striking contrast with total sales of 381,635,752 shares, a daily average of 1,267,892 shares, and sales of 3,947,950 shares on the busiest day of the year. The market value of both the stocks and bonds listed on the New York Stock Exchange on January 1, 1929, exceeded \$114,000,000,000. On December 1, 1935, the market value of the listed stocks and bonds—2,642 issues in all—was \$83,415,295,214.⁷

To many persons a stock-exchange is merely a place where a very noisy aggregation of brokers gamble in securities under the thinly disguised pretense of doing a legitimate business. Such persons fail to understand the economic functions of the exchange. True it is that the exchange is sometimes used for gambling purposes, but this should not condemn it outright, since gambling is a subversion and abuse of its primary purpose. It is possible to gamble on almost any event. Boys have been known to gamble on the length of a minister's prayer, but it is to be hoped that this did not destroy its efficacy nor curtail future ministerial functioning in this respect.

The stock-exchange is primarily a market-place. It facilitates two types of legitimate transactions: investment and speculation. Since orders to buy and to sell converge upon the floor of the exchange,

⁷ Cf. monthly *New York Stock Exchange Bulletin* for continuous data such as the above.

both investment and withdrawal from investment are made easy. It is possible to buy a single share of stock, or a single bond with a par value of \$100. Although shares are usually only bought and sold in even lots of 100 shares each, the operations of the odd-lot broker, who "bunches" orders, make it possible to buy or sell any desired number of shares. The exchange provides a diversified list of investment opportunities, ranging from the most solidly conservative bonds to the more speculative common stocks, and thus appeals to all classes of investors. It provides marketability for those holding securities listed on the exchange. The ready marketability of listed securities makes them peculiarly available as collateral for bank loans, if those owning them find it necessary or desirable to borrow.

But the exchanges furnish opportunities not only for investment and the liquidation of investments, but also for speculation. Since there is a speculative element in all business, it is exceedingly difficult to draw a sharp line of demarcation between speculation and investment. Because most business has to be conducted on an estimate of future demand, there is some speculation in it. Perhaps as practical a criterion as any for distinguishing between an investment and speculation from the individual's point of view is this: when a security is bought, primarily, for the income it yields, the transaction is an investment; when bought, primarily, for possible appreciation in the value of the security itself, the transaction is a speculation. In making an investment the buyer seeks as much as possible to avoid risks; in committing himself to a speculation, he courts risks in the hope of making profits. To speculate intelligently, rather than blindly, may require as much thought and study, or even more, than to make a relatively safe investment.

The technique of speculation on the New York Stock Exchange resembles that on the Chicago Board of Trade. The bulls and bears operate in both. Stocks may be sold short just as grains are. Under the rules of the New York Stock Exchange, however, brokers selling a stock short must deliver it by the close of business the following day. They are able to do this by borrowing the stock from other brokers who hold it in their accounts. As security for the borrowed stock they must deposit the market value of the stock in cash. When the borrowing brokers cover their short sales by subsequent

purchases, they are in a position to return the number of shares of any stock they have borrowed.

A widespread speculative practice in both stock markets and produce exchanges is "dealing on margin". Dealing on margin consists in buying a stock by paying only part of the purchase price and borrowing the rest. If the margin required represents only 40 per cent of the purchase price, the speculator's broker, or the broker's bank, must advance the rest, at interest because the stocks bought in the market must be paid for in full. The broker keeps the purchased stock as security for the money advanced the speculator. If the price of the stock advances in the market, all is well. But if it declines, and the decline is drastic enough to wipe out the margin put up by the speculator, the broker calls for more margin, that is, a bigger down payment from the holder of the stock. If he can furnish it, he retains the stock; if not, the broker will sell the stock before the original margin payment is completely wiped out. Dealing on margin increases the speculator's leverage, because a given sum of money used as margin will finance the purchase of a larger number of shares than a purchase with payment in full. The chances both for profits and for losses are correspondingly greater. If a person owns stocks outright, it rarely happens that the value of his holdings is completely destroyed. If he owns them on margin, however, it frequently happens, and with surprising rapidity, that he loses his entire equity.

Control over the issuance of securities. The issuance of securities and the operation of the security exchanges in the United States has in recent years been brought under close governmental supervision and control. The investing public needed protection against exploitation and also against its own mistakes. That investors would suffer terrific losses in the depression beginning in 1929 was to be expected. But it came to be realized that some of these losses could have been avoided if greater care had been exercised in the issuance and sale of the securities. Foreign bond issues fared badly, from 50 to 75 per cent of those held in the United States going into default. A congressional investigation revealed inexcusable laxity by investment banking houses in floating securi-

ties that never should have been sold at all, excessive commissions for underwriting them, and some actual financial scandals. The pyramiding of public utility holding companies, and the marketing of their securities, with the eventual collapse of a huge system like the so-called Insull Empire, shook public confidence in the old methods of distributing securities. The conviction became widespread that the full facts pertaining to many security issues had not been given to the public. Others, while admitting this, contended that, even if they had been, the public needed further protection because so many investors would either not understand the facts or take time to master them.

The Securities Act of May 27, 1933 (amended June 6, 1934), was designed to compel the issuers of securities to tell the whole truth concerning them and to hold such persons liable for losses sustained if they failed to do so. As the Conference Committee of the Senate and the House said in favorably reporting this "truth in securities act", its purpose is "to provide full and fair disclosure of the character of securities sold in interstate and foreign commerce and through the mails, and to prevent frauds in the sale thereof". While the Securities Act is based upon the assumption that what the investing public needs is full and accurate information, it also substitutes for the old rule of *caveat emptor* the new rule of *caveat venditor* ("let the seller beware"). Under the act those contemplating the issuance of securities, not specifically exempted by the act, must file a registration statement with the government, which sets forth all the facts that an interested investor should have at his disposal. Unless this is done, the instruments of transportation and communication in interstate commerce, including the mails, cannot legally be used in marketing the security. Sellers must provide buyers with prospectuses of the securities sold; the prospectus is an epitome of the registration statement.

The Securities Act will not prevent an investor from making foolish commitments in risky ventures. It can provide him with no real information concerning the future, upon which, rather than the past, the value of investments so largely depends. What it does is to give him full information concerning the past, and an op-

portunity of knowing what he is committing himself to before he does it. It cannot compel him to act wisely, but it gives him a chance to act intelligently.

Control over trading in securities. The Securities Exchange Act of June 6, 1934, supplements the Securities Act of 1933. It regulates the whole business of *trading* in securities, as the earlier act regulated the issuance of securities. Stock-exchanges are brought squarely within the regulatory powers of the government. Prior to the enactment of this law they had not been regulated under either State or federal laws. The New York Stock Exchange, for example, had frequently been described as a rich man's club outside the pale of regulation. The act made it a regulated public institution.

There had been serious abuses in the operation of the exchanges, with no real public accountability. Stock market manipulations, speculation on thin margins, the slaughter of "lambs", the draining of funds into speculative channels when needed elsewhere, and the creation of artificial values for the sake of avoiding tax payments were some of the counts in the indictment of the exchanges. The Securities Exchange Act seeks to correct these abuses. It sets up a Securities and Exchange Commission of five members, appointed by the President, to regulate the whole business of issuing and marketing securities and to offer what protection it can to the public.

One important power of the commission is the power to require registration of stock-exchanges and securities as a condition for the use of any of the instrumentalities of interstate commerce by the exchanges in the conduct of their business. The commission thus receives information in regard to the securities listed on the exchanges and may call for further information as needed. It may prescribe the form of the accounts and records to be kept and made by the brokers and exchanges, and may itself make whatever examinations are deemed necessary. It may suspend trading in securities if the issuer has not complied with all the requirements of registration, and it may suspend exchanges themselves if they violate any of its rules.

A second objective in the establishment of a regulatory commission is the prohibition of manipulative practices, generally re-

garded as undesirable. Wash sales, matched orders, rigging, upward and downward manipulation of prices, all designed to create an impression of exchange activity and to affect prices for the benefit of insiders, are expressly prohibited. Security prices may not be pegged except upon authorization of the commission. Puts, which are contracts to deliver stock at a specified price, and calls, which are rights to take stock at a specified price, may only be used under rules laid down by the commission. This is also true of short sales.

Finally, the Securities Exchange Act seeks to control credit for speculative purposes. Two provisions of the act are important in this respect. The Board of Governors of the Federal Reserve System is given power to control margin requirements for dealings on margin, under congressional declaration that they shall be substantial and designed to prevent excessive speculation. The other significant provision is that brokers' loans must be made through banks that are members of the federal reserve banking system or have agreed to its regulation in this respect. This seems to give the Board of Governors of the Federal Reserve System power to check what it regards an undesirable flow of bank credit into the security markets of the country.

The Securities Act of 1933 and the Securities Exchange Act of 1934 have unquestionably tended to restore confidence in the securities business. An incidental danger is that they may lull investors into a false sense of security, because after all many securities are not registered, and many of those that are must be classified as speculations and not as investments. On the whole, however, it may be expected that there will be somewhat greater security in securities, and that investors will turn more to sustained earnings than to the possibility of speculative profits as the basis of their market valuations. Honest markets, with an abundance of sunlight and fresh air to encourage their growth, are the all-inclusive objective of our recent securities and security exchange legislation.

PART III
VALUE AND PRICE

CHAPTER XVIII

VALUE AND PRICE

The central problem in economic theory and practice is the problem of what determines value and price. The price of consumers' goods such as food and clothing, of producers' goods such as land and machinery, of human services whether manual labor or professional service, all present intricate problems for economic analysis that are of the deepest significance. Whether prices are relatively high or low, rising or falling, balanced or unbalanced, is usually a matter of prime importance as far as the prosperity or depression of an economic community is concerned. What an individual must pay for butter and meat, shoes and gasoline, coal and housing, and what in turn he can sell his own services or products for are price problems that loom large in his own economy.

The core of economics as a distinct branch of human learning is furnished by its theory of value. This has been a fertile field of inquiry—and of controversy. In 1848 John Stuart Mill, whose *Principles of Political Economy* admirably summed up the thinking of the classical economists as it had developed during the previous seventy-five years, had this to say about value: "Happily there is nothing in the laws of value which remains for the present or any future writer to clear up; the theory of the subject is complete."¹ It was an over-optimistic statement. Only a generation later the American economist, John Bates Clark, took direct issue with Mill when he wrote: "The charm of novelty, at least, should attach to a philosophy of value, provided only that it prove to be the true one; for it is certain that in all that has been written on this much elucidated theme, a statement of the real nature of the thing discussed is not to be found."² Hotly contested theories of value bear witness to

¹ *Principles of Political Economy*, edited by W. J. Ashley (London: Longmans, Green & Co., 1909), p. 436.

² *Philosophy of Wealth* (Boston: Ginn and Company, 1885), p. 70.

the supreme importance of the subject. What theory of value, or value principles, does present-day economics have to offer in explanation of the value problem? This is a basic question because we are all deeply concerned with the interaction of forces and influences that determines the prices we have to pay for the goods we desire and the prices we get for whatever we have to sell.

NATURE OF ECONOMIC VALUE

"Value" is a term that has many meanings. In ordinary speech it is commonly attributed to anything that is of use in the satisfaction of human wants. In this sense there are not only economic but also political, social, esthetic, ethical, and religious values of life. The meaning which all such values have in common is perhaps best expressed by such words as "worth", "esteem", "usefulness", or "utility". But while economic value is a species that belongs to this broad genus of want-satisfying goods, it is something more than mere utility.

Anything has economic value if it is not only useful but also scarce and if its value is susceptible of more or less definite measurement. Under these conditions it has economic value whether it is exchanged or not. When a thing is both useful and scarce, economic value arises, and it arises under no other conditions. Useful things that exist in superabundance have no economic value. They are free, not economic, goods. Economic values usually, though not necessarily, reveal themselves in ratios of exchange. But scarce goods have economic value whether they are objects of exchange or not. There were economic values in a self-sufficing economy, although there was an absence of exchange. There were economic values for Robinson Crusoe even before Friday's advent made exchange values possible. There would be economic values in a communistic society in which each produced in accordance with his capacities and took in accordance with his needs without the aid of any organized system of exchange. The economic value concept is also essential in accounting for the value of many goods in our modern exchange economy which themselves are never intended for exchange, such as public buildings and prized possessions of many

kinds. Economic values may be thought of as existing antecedent to exchange. They guide the wealth-getting and wealth-using activities of man, prompting him to direct and invest his productive efforts so as to satisfy his most urgent desires. As a tool for the complete qualitative analysis of the value problem the concept of economic value is fundamental, even though quantitatively economic values are usually measured in exchange.³

ECONOMIC VALUE EXPRESSED IN EXCHANGE VALUE AND PRICE

Economic values commonly manifest themselves in exchange and lend themselves to pecuniary measurement in the exchange ratios of the market-place. "Value", says John Bates Clark, "expresses itself in the quantitative ratio in which commodities exchange for each other in the market."⁴ Goods come to have exchange value largely because specialization in production has developed and so the exchange of goods has become necessary and desirable. If every person produced all that he needed in the satisfaction of his wants, there would be no occasion to exchange goods and no exchange values to settle.

Exchange value has aptly been described as "power in exchange". The exchange value of a good may be measured by whatever other goods are offered in exchange for it. To have exchange value a good must invite and sway man's choice. Some things are chosen, others are rejected, because they have greater or lesser importance for man than what he has to offer in exchange. It is this importance which things have when they become man's choices that gives them exchange value. In economic literature, unless qualifying adjectives are used, "value" usually means "exchange value".

Since men no longer customarily exchange goods directly but rather do so through the medium of money and credit, exchange values are usually expressed as prices. While the exchange value

³ On the nature and importance of economic value in discussions of the value problem cf. F. M. Taylor, *Principles of Economics* (New York: The Ronald Press, 1921), Ch. I; Ch. XIX, pp. 242-243; also B. M. Anderson, Jr., *The Value of Money* (New York: The Macmillan Company, 1917), Ch. I; B. M. Anderson, Jr., *Social Value* (Boston: Houghton, Mifflin and Co., 1911).

⁴ *Philosophy of Wealth* (Boston: Ginn and Company, 1885), p. 91.

of a good could be expressed in terms of every other good for which it might be exchanged, money serves as the most convenient common denominator. Accordingly price is exchange value expressed in terms of money. The fact that we can reduce all exchange values to money prices enables us to compare values of the most diverse sorts. A small particle of radium commands a fabulous price; a pound of coal, a negligible price. A concert artist may be paid \$5,000 for an evening's performance; a surgeon may receive a few hundred dollars for an operation that lasts as long; a skilled mechanic may get a few dollars for working the same number of hours; but a champion prize-fighter may even be rewarded with \$100,000 or more for lasting a few three-minute rounds. Prices are a convenient means of reducing all the qualitative differences of want-satisfying goods to a common denominator. Prices are subjective when they denote the sums of money, or its equivalent, at which prospective buyers will buy or prospective sellers will sell a given good. Prices are objective when they denote the sums of money at which exchange transactions actually take place. At any given moment prices may fairly represent values; over a period of time price changes do not necessarily record corresponding changes in value. If given styles of shoes and hats sell for \$8 and \$4, respectively, on a given date, their relative value is obviously as 2 is to 1. If some time later their selling prices are \$12 and \$6, their relative value is still the same, although it is evident that their money prices have advanced 50 per cent. The immediate problem of the theory of value is to explain the ratios at which goods exchange for one another. Economists have largely confined themselves to this phase of the value problem. The more remote problem in the theory of value is the explanation of the economic values that enter into ratios of exchange. Since prices express exchange values, the explanation of exchange value in practice becomes the problem of price determination.

FUNCTIONING OF THE MARKET IN THE DETERMINATION OF COMMODITY PRICES

In the preceding chapter the organization and functioning of representative markets have been discussed. Exchange values or

prices arise out of the transactions of such markets. The commodity market, with which this chapter is chiefly concerned, may be thought of as either a retail or a wholesale commodity market. Essentially every such market is a series of transactions in which commodities are bought and sold at prices which under the conditions of the market are acceptable to the buyers and sellers.

While every transaction of the market represents the meeting of the minds of an actual buyer and an actual seller, market price is influenced by the presence of other parties as well. Actual buyers and sellers are in competition with potential buyers and sellers. To the actual buyer and seller, and the potential buyer and seller, the state may be added as a fifth party to the transactions of the market, since it provides the governmental sanctions for such transactions and often limits their terms.⁵

The prospective parties to a transaction of the market, both buyers and sellers, formulate their subjective prices, which merely represent the terms on which they are willing to do business. The subjective prices of prospective buyers and sellers are measured, respectively, by the largest amount of other goods which they will give for a good, or the smallest amount of other goods which they will accept for it. Such subjective prices may be carefully and precisely formulated in advance of possible participation in the transactions of the market or they may be nonchalantly expressed in the market through the acceptance by either buyer or seller of the price offer of the other party to the transaction. The objective prices of the market which always and only emerge from the actual transactions of the market are the resultants of the interactions of the subjective prices of prospective buyers and sellers. These subjective prices together make up the demand for and supply of the goods of the market, since goods are always wanted and offered at specified prices. The demand for a good is a composite of the subjective prices of prospective buyers, and similarly the supply is a composite of the subjective prices of prospective sellers.

To say that exchange value is a resultant of the interaction of the subjective prices of buyers and sellers, or an expression of the

⁵ Cf. John R. Commons, *Legal Foundations of Capitalism* (New York: The Macmillan Company, 1924), pp. 65-68.

relation between demand and supply, is not, however, to offer any real explanation of value at all. At one time it was supposed that the fundamental law of value could be summed up in the simple formula: Value varies directly with the demand and inversely with the supply. But one does not need to be an economist to know that when the total demand for a good rises with either no change in the supply or a decrease in the supply, prices will rise. Conversely, when the total demand for a good falls, with either no change in the supply or an increase in the supply, prices will fall. The law of demand and supply explains variations in value, but it does not explain the origin or causes of value. It merely tells us how the market forces work themselves into equilibrium. It is a formula and not a doctrine or theory of value. Demand and supply furnish the most convenient approach to the determination of exchange value or market price, but if themselves unexplained they are nothing more than the mechanism of the market. Both the demand and the supply, in a given market, and over periods of time, require explanation if we are to have any real theory of exchange value or market price. Henry Clay has picturesquely expressed the superficiality of much of the current demand and supply explanation in the following words:

It was said in the middle of the last century that you could make a good economist of a parrot by teaching it to repeat the words "supply and demand"; a great many people have acted on this belief, and, having taught themselves to repeat, like parrots, the words "supply and demand", have set up for economists. In spite of frequent misuse, however, the principle that value depends on supply and demand is extremely important; a parrot that fully understood it would indeed be a good economist, but it seems to be beyond the comprehension of most parrots, human and otherwise.⁶

If exchange value emerges from the interaction of the subjective prices of prospective buyers and sellers, together represented in the market demand and supply, it is clear that the important theoretical question at issue is: What determines the subjective prices of prospective buyers and sellers? Value theory (i. e., price theory) largely turns on the explanation of the determinants of the subjective prices of the parties to a transaction of the market. These determi-

⁶ *Economics for the General Reader* (New York: The Macmillan Company, 1918), p. 274.

nants are both general and specific. There are certain general determinants, represented by the economic institutions of time and place, which affect the transactions of the market. Among these is custom, which influences many retail prices. In many American communities five-cent prices for a loaf of bread, a quart of milk, and a street-car or bus fare prevailed long after economic conditions warranted an advance. In some communities one or more of these prices still prevails. During the World War period bakers, for a time at least, were forced, or preferred, to reduce the size of the loaf of bread in many communities rather than risk the resentment among customers which an advance over the long-established customary price would have aroused. Subway fares in New York City in years of prosperity as well as of depression have been and are five cents. Custom is an influential general determinant of price, particularly in the case of standardized articles the purchase of which is repeated at frequent intervals, such as cigarettes. Another general determinant of price is public authority. More extensively than is commonly supposed, public authority fixes or regulates the prices of many commodities and services which the consumer buys. Even though the good concerned may be worth more to him, he will naturally not offer more than the publicly established price, nor can he secure it for less. The charges of all public utility enterprises, such as those for railway service and electric light and power, are familiar examples of prices determined by public authority. Still other general determinants of the subjective prices of prospective buyers and sellers are the possible presence of monopoly and, more particularly, the effectiveness or non-effectiveness of competition. Monopoly means such control over the supply of a good as to give some control over its price. If the monopoly is complete, the business concerned is either socialized, as is the postal service everywhere, or regulated by the government, as is the case with the public utilities. What private monopoly exists is usually temporary and local, but whenever it does exist it of course affects the subjective prices of buyers and sellers in the markets of the partly monopolized good. The competitive character of most markets is still the predominant general determinant of the subjective prices of buyers and sellers. The fact that buyers compete with one another in acquiring the goods

they want, and that sellers compete with one another in disposing of the goods they offer for sale, is a matter of prime importance in accounting for the terms on which buyers and sellers will do business. In spite of the presence of some elements of monopoly and much public regulation of prices, modern economic society is still largely competitive.

Custom, public authority, monopoly whenever it exists, and competition are powerful general determinants of the subjective prices of prospective buyers and sellers, and thereby help set the prices at which commodities and services can be bought and sold in the market. But there are even more important specific controlling determinants provided by what the buyer is able and willing to pay and what the seller is willing to take. A qualitative analysis of these constitutes the core of most price theories. Much of the discussion that immediately follows represents an attempt to make such a qualitative analysis.

While subjective prices, however they may themselves be determined, interact in the establishment of objective market prices, it is also well to note that prevailing market prices influence the subjective prices of both prospective buyers and sellers in future price transactions. We live in a world of prices, and the terms on which we are willing to buy and sell are influenced by the "going" valuations of the market. This is what is meant by saying that demand, supply, and price all interact. Any given price to be sure is the resultant of the market demand and supply, but the going price so established affects future demand and supply.

The approach to a study of the problem of price determination that has been sketched in the preceding pages may be conveniently summarized as consisting of a study in sequence of the

Market

Transactions

Parties

Subjective Prices (Comprising the Demand and Supply)

Determinants

General

Specific

Value theory is largely concerned with setting forth the specific and general determinants of the subjective prices of parties to transactions in given commodity or service markets.

QUALITATIVE ANALYSIS OF DEMAND AS A PRICE-DETERMINING
FACTOR IN A GIVEN MARKET AT A GIVEN TIME

In a competitive market all the conditions and forces affecting the price of a good must bring their influence to bear through the demand for and supply of the good. The demand of a single individual may be negligible in its effect upon market price. But the total demand for a good, together with the supply available in the market, accounts for the price. The market demand for a good is the amount that buyers are ready to purchase at each specified price in a given market at a given time. There is a different demand at every possible price. The total demand of the market is expressed as a schedule of the quantities of a good which prospective buyers are ready to purchase at each designated price. The demand of the market is relative to a given moment of time, because with the lapse of time conditions may change and so price-offers will change. Practically the "moment of time" may lengthen into a period of time in which neither basic conditions nor price-offers change. Of the total demand at all possible prices, some is translated into an actual market price through the consummation of purchase and sale and some remains potential, awaiting more favorable conditions to become actual. Demand, whether actual or potential, expresses the subjective prices of prospective buyers. The chief task in commodity price analysis is the explanation of what determines the subjective prices of the parties to a market transaction. Demand, as an expression of buyers' subjective prices, is something more than mere desire. It is desire which is supported by purchasing power and which has reached the stage of a positive inclination to buy because of the relative importance of the desired good to the buyer. We desire goods that are of use to us. We attribute utility to them. But the desire for a good can only be translated into effective market demand through the possession of purchasing power.

Some years ago a hungry-eyed boy was standing in front of an exceedingly transparent but forbiddingly thick plate-glass window of a Madison confectioner's shop. He was longingly admiring the alluring display of sweets that a skilful window-dresser had prepared to catch the attention of passers-by with money to spend. Anyone would have had to be blind indeed not to note eager desire depicted on the boy's face. But desire does not constitute effective demand. Noting the intense longing on the youngster's features and surmising his impecuniousness, a generous fellow-observer—whether a big-hearted student from the near-by university or a kind-hearted professor, memory no longer distinctly recalls—gave the boy a dime. That changed his economic situation. Within the limits of ten cents of purchasing power he could now become an effective demander for candies. Then something interesting happened; a sort of tug-of-war developed in the little fellow's mind between two rival desires. Economists, with their fondness for abstractions and impressive names with which to label them, would call it a struggle between marginal utilities. It was in the days when ten cents still admitted a child to a motion-picture theater. Remembering the display pictures of a thrilling melodramatic "movie" which he had seen a short distance down the street, the lad now had to choose how to spend his unexpectedly acquired wealth. Which was the more important to him: the enjoyment of two hours of the silent "movie" or the gustatory delights of consuming the sweets? Apparently being of an imaginative turn of mind, the boy chose the picture. In choosing the motion-picture he gratified one desire at the expense of another; he helped to the extent of ten cents in making up the effective demand for pictures rather than for candies; and he chose that which for the moment at least seemed to have the greatest appeal and importance to him. Simple and home-made though the illustration is, it typifies the demand situation which any theory of value must analyze.

Marginal utility as a specific determinant of demand. The mere fact that a thing is wanted in the satisfaction of a human desire is sufficient neither to give it exchange value nor to explain its exchange value, if it had any. Utility alone does not create value. Things having utility must at the same time be scarce in

relation to the wants to be satisfied if they are to command a price. Otherwise they are free goods, which have utility but no exchange value simply because they exist in superabundant amounts. Air out-of-doors has infinite utility, but no scarcity and consequently no exchange value. With reference to the exchange value of any good the question is, How much or how badly is it wanted in the market? How much of his possessions or his control over other goods is a person willing to give in exchange for a given good? The answer to this question involves an understanding of the associated principles of diminishing utility and marginal utility.

The law of diminishing utility in relation to marginal utility. In determining how much he is willing to offer for a unit of a given good, every person is influenced by a certain principle of experience which economists have called the law of diminishing utility. This law states that the intensity of a person's desire for a good tends to decrease as he consumes or acquires successive units of it. The basis of the law is both physiological and psychological. A single want at any given moment is soon satisfied. Man's organism at any given time does not respond with equal units of satisfaction to a long or often repeated stimulus. For a short time in the acquisition and consumption of goods there may be increasing rather than diminishing utility; appetite sometimes comes with eating, which means increasing utility, but sooner or later the consumer becomes "fed up", which means that utility has declined. If there is no change in the psychophysical condition of the consumer, the goods which he acquires for consumption will have diminishing utility for him. This fact will of course affect the prices he is willing to pay for them. Illustrations of the principle are commonplaces of everyday experience. Not everything in economics can be demonstrated in an experimental laboratory. The reader, however, can test the law of diminishing utility and its relation to price at any time and any place. The consumer of buckwheat cakes for breakfast or of "malted milks" in the afternoon can soon demonstrate to his full satisfaction that the law of diminishing utility is something real and strongly affects the price he would be willing to pay for another unit provided he had to consume it at once.

But we acquire goods not merely for immediate consumption but

also for the gratification of future wants. Does the law of diminishing utility apply in such cases? The answer is yes, but the present provision for future wants naturally retards the rate at which utility declines. We all seek to take advantage of economic situations in which we can acquire goods on attractive terms for both present and future wants. But even upon the assumption that the buyer has the means to make the advance provision, there is a distinct limit to the number of units of a good he cares to acquire and store for future needs. Diminishing utility is experienced in providing for future as well as present wants.

If it be granted that utility has a tendency to diminish as we acquire successive units of a good for both present and future consumption, it is evident that it is the importance attached to the possession of a single additional unit that determines what we are willing to give for a good provided we have the means to acquire it. This principle of valuation economists call by a name that sounds strange and unfamiliar to the uninitiated, the name "marginal utility".⁷ It means the utility derived from the possession of a single unit of a given stock of goods.

Marginal utility and subjective price. In the consideration of exchange value the principles of diminishing utility and marginal utility explain the sometimes puzzling fact that goods the total utility of which is very great may have little or no value in exchange. Adam Smith observed: "The things which have the greatest value in use have frequently little or no value in exchange; and on the contrary, those which have the greatest value in exchange have frequently little or no value in use." He said by way of illustration that diamonds had little value in use and yet great value in exchange; that water had great value in use but little value in exchange.⁸ In drawing his distinction and making his comparisons Adam Smith was thinking of total utilities and not of unit utilities. If he had had the marginal utility concept, he would have drawn a very different conclusion. The total utility of water is infinitely greater than the total utility of diamonds, since man cannot live

⁷ The term is the English equivalent of the German *Grenznutzen*, as developed by the Austrian economists.

⁸ *Wealth of Nations*, Book I, Ch. IV.

without the former and can easily dispense with the latter. But this is not a choice he is compelled to make. All that ever has to enter his calculations is the importance to himself of a single unit. The marginal utility of diamonds is under normal conditions greater than the marginal utility of water.

By the marginal utility of a good is meant the importance of any one of the homogeneous units of a supply of the good. Marginal utility does not mean the utility of any particular unit, but the utility dependent on the possession of any one unit of a given stock of goods. Marginal utility is unit utility, provided the units are of the same kind and quality. Since marginal utility depends upon the intensity of the want that is satisfied through the possession of one unit of a given stock of goods, the larger one's supply of a given good, the lower in general will be its marginal utility. The smaller one's supply of a given good, the higher in general will be its marginal utility. The marginal utility of any good to a person varies directly with the intensity of his desire for it and inversely with the number of units of it already at his disposal. If a householder needs twelve tons of coal to heat his residence comfortably through one of our northern winters, the marginal utility of coal to him is the degree of importance that he attaches to the use of any one of the twelve tons of coal. Since presumably each ton of coal is capable of perfect substitution for every other, the utility attached to the twelfth ton is the utility he would lose if he dispensed with the use of any one of the twelve tons. The loss of the twelfth ton might mean less comfort on the chilly days of autumn and spring because the furnace was not in operation. Dispensing with the eleventh ton might necessitate lower temperatures in the house throughout the coal-burning season. Going without the ninth and tenth tons might force the householder to shut off certain rooms of the building entirely. To give up the seventh and eighth tons of coal might occasion very great discomfort and serious risk to health. Six tons may be the indispensable minimum. It is obvious that the marginal utility of coal rises as the amount available to the householder falls and the gratification of more intense wants is dependent upon the use of the coal. In direct order of importance six tons are essential to prevent freezing in the house; the seventh and

eighth tons, to avoid jeopardizing health; the ninth and tenth to enable the occupants to use the entire house; the eleventh to provide the desired temperature; and the twelfth to enjoy comfort on chilly days as well as during the colder season. Marginal utility varies with the intensity of the want satisfied and the amount of the want-satisfying good on hand. When identical units of a good have a number of different uses for a person, it is what he regards as the least important use that measures its marginal utility to him. Any one of the units, however, is the marginal unit, since they can be freely interchanged.

Newcomers to the marginal utility analysis of value are sometimes puzzled in their attempts to identify the marginal unit and its utility. Is it the utility of any one of the units of a good that has already been acquired? Or is it the utility of an additional unit to be acquired? It may be either. Whether marginal utility is defined as the utility of any one of the units of a stock of goods already on hand or of an additional unit to be acquired varies with the viewpoint of the present or prospective holder, the seller or the buyer. To the present holder or prospective seller of a good, its marginal utility is the utility that he would sacrifice through parting with one unit of the good. To the prospective purchaser, the marginal utility of the good is the degree of importance he attaches to the possession of an additional unit of the good.

What the prospective buyer always considers in making a purchase is the utility to himself of "a little more or a little less".⁹ With most consumer-buyers it is not a question of acquiring something of a given good or getting along without any, but rather a question of buying a little more or getting along with a little less. With food, clothing, housing, and sundries of all sorts, consumers rarely have to choose between some or none, but rather between using a little more or economizing by buying a little less of these goods. It is usually the utility of this "little more or little less" that decides what a good is worth to us in the market and not its total utility. Men rarely buy the total supply of a good, although of course it does happen; the purchase of unique works of art is an

⁹ Philip H. Wicksteed, *The Common Sense of Political Economy* (London: Macmillan and Co., Ltd., 1910), pp. 367-368.

illustration. In such cases marginal utility and total utility coincide.

Important as is marginal utility in controlling demand, provided there is purchasing power to make it effective in the market, marginal utility is no gauge of the total utility of a good to a consumer. The consumer's total utility derived from his supply of a commodity cannot be estimated at the rate of utility attributed to the marginal unit, the least important utility to him. Suppose that he has five units of a good whose diminishing utility to him is measured by the series 5, 4, 3, 2, 1. Obviously the marginal utility is 1, the degree of utility that he would lose by parting with one unit. But the total utility is not 1 (the marginal utility) \times 5 (the number of units). The total utility is much greater than this. It is the sum of the successive unit utilities: $5 + 4 + 3 + 2 + 1$ or 15, since marginal utility rises as the available supply grows smaller. Not the product, five, but the sum, fifteen, measures the total utility of the good under the conditions assumed. Total utility may also be gauged by considering what utility would be lost if the consumer had to sacrifice his entire supply of a good in one fell swoop. Since men customarily buy units of a good rather than their total supply, their inclinations to buy and their subjective price-offers are influenced by marginal utility rather than by total utility.

But it cannot be too strongly emphasized that marginal utility and subjective price-offer are not identical. One cannot measure the marginal utility of a good to a person by noting his price-offer for it, because the latter is strictly limited by the amount of purchasing power he has. Only upon the assumption that "all other things are equal" (that face-saving clause so conveniently used by many a logician-economist) is it true that price-offers vary directly with marginal utilities. Marginal utility assuredly affects the subjective price of the prospective buyer, but it does not exclusively determine it. No price-offer would be forthcoming for a good unless it had positive marginal utility for some buyer (i. e., a utility above zero). But how much he can afford to offer depends not only upon the marginal utility of the good concerned but also upon the amount of his purchasing power and the strength of his desire for other goods. The marginal utility of pork chops to a poor man may be very much higher than to a rich man even though they make the

same price-offer and pay the same price for them. Or the poor man may decide that in spite of the high marginal utility of pork chops to himself, he would prefer to spend his scant wages for something that he needs and wants even more. Every subjective price of a prospective buyer, which is a price-offer, involves the comparison of one marginal utility with another. If a person offers fifty cents a pound for bacon, what he substantially says by his price-offer is that the marginal utility of the bacon is greater to him than the marginal utility of any other good which his fifty cents will buy. If this is not true, he should spend his money for that which has the greater marginal utility for him. Davenport has well put the relation of marginal utility and price-offer when he says: "No price offer anywhere is expressive of absolute, but only of relative, marginal utility. . . . The decision to purchase is arrived at only as a choice between competing marginal utilities."¹⁰

In fixing their subjective prices, which involve such comparison of marginal utilities, and in apportioning their expenditures, men are apt to place their most urgent wants first. But on account of the law of diminishing utility, men do not usually acquire an indefinite number of units of the good that satisfies their most urgent want. More units of satisfaction can be obtained by spending their money for something else. The diversification of expenditures usually results in the largest possible total utility. This is fully achieved only by those buyers who so diversify their expenditures that the utility derived from the final dollar's purchase of any good is equal to that of every other dollar's purchase of other goods. Such consumer-buyers have achieved a perfect balance of their marginal utilities. They are getting the most for their money. The marginal utilities of a consumer-buyer, all together, locate his margin of consumption. The buyer intent upon getting the greatest possible gratification seeks constantly to keep his marginal utilities as nearly equal as possible. This necessitates acquiring varying numbers of units of different goods until the marginal utility of the last unit of any one about equals the marginal utility of every other.

The marginal utility analysis of the value of a good may be ap-

¹⁰ H. J. Davenport, *The Economics of Enterprise* (New York: The Macmillan Company, 1913), pp. 103, 104.

plied not only to whole units of goods but to the different qualities of such goods. Most goods that we buy have several qualities that appeal to us; they are "bundles of utility". The marginal utility of such a good really consists of the separate marginal utilities of the different qualities attributable to the good. In considering the purchase of an automobile such qualities as power, size, comfort, elegance of finish and equipment, and even reputation have varying appeals to different prospective buyers. Some prefer more of this and others more of that. It is said that men are usually more interested in qualities of mechanical construction and women in qualities of appearance and comfort. In debating what type and make of car to buy, most persons contemplating the purchase of an automobile are forced to consider whether they want more or less of this quality and that, and what price they are willing to pay for the particular combination of qualities they desire. No one person in all likelihood (as will be pointed out presently) is the marginal purchaser of all the qualities of the automobile—the person who would not buy an automobile at all if the price involved were higher.¹¹

The preceding qualitative analysis of demand as a price-determining force in a given market at a given time has resolved demand into the subjective prices of prospective buyers, which are specifically determined by the marginal utilities of goods but limited by the purchasing power of the buyers. To grant that effective demand is marginal utility supported by purchasing power is to assume something of value in the explanation of market price. An ultimate theory of economic value would of course have to explain the value of the assumed purchasing power as well as the price of the good which the purchasing power helps to determine. But for the moment our immediate problem is the explanation of exchange value or market price: What determines how much of what we have (which is our purchasing power) we are willing to offer, and find it necessary to offer, in exchange for a particular good? Purchasing

¹¹ For discussion of the rôle of the marginal buyer cf. pp. 473–474 of this chapter. For the application of the marginal utility principle to the separate qualities of a good and development of the idea that the price of the good is lower than would otherwise be the case because no one person is the marginal purchaser of all its qualities, cf. J. B. Clark, *Distribution of Wealth* (New York: The Macmillan Company, 1899), pp. 210–245.

power may properly be assumed in the explanation of the exchange value or market price of a good. The theoretical question at issue is: How much of his purchasing power must a buyer give in exchange for a designated good? The answer to this question does not come from the demand side alone. The subjective prices of prospective buyers vary greatly in most markets because both their marginal utilities and purchasing powers are so different. Some potential buyers find that their subjective prices are too low to induce sellers to part with their goods. Others find that market conditions are such that they do not need to pay what they would have been willing to pay if it were necessary. Market price is conditioned and explained not only by the demand but also by the supply.

QUALITATIVE ANALYSIS OF SUPPLY AS A PRICE-DETERMINING FACTOR IN A GIVEN MARKET AT A GIVEN TIME

Market supply, like market demand, always means something very definite. It does not signify the entire physical supply that might conceivably be thrown upon the market. Market supply does mean the amount of a good that sellers are ready to sell at each specified price in a given market at a given time. There is a different market supply for every possible price. The total supply of the market is expressed as a schedule of the quantities of a good which prospective sellers are ready to sell at each designated price. The supply of the market, like the demand, is relative to a particular moment or period of time, during which the selling offers hold good at the specified prices. Of the total supply at all possible prices, some is converted into an actual market price through the consummation of purchase and sale, and some remains potential until market conditions change in its favor. Supply, whether actual or potential, expresses the subjective prices of prospective sellers. What determines these subjective prices is the question that a theory of commodity prices must seek to answer in its analysis of supply.

One important difference between prospective sellers and buyers, in the retail commodity market particularly, is that for the most part the former are "professionals" while the latter are "amateurs". Most selling is done by persons who make their living by selling

goods to ultimate consumers. Most retail buying is done by persons who are interested in acquiring goods for the satisfaction of their own wants or the wants of others which they have undertaken to gratify. The buyer acquires goods for use. Their marginal utility is of decisive importance to him. The seller as a rule parts with goods that he has no intention of using himself. He is interested in the profits that he can make in the business of selling. It is not so much the marginal utility of that which he has to sell that controls the subjective price of the prospective seller as it is the marginal utility of that which he hopes to get in exchange. Of course there are exceptions to this general rule. The good in question may have very great marginal utility as a commodity of use to both buyer and seller. A family in straitened circumstances, but which has known much better financial days, may be compelled to find a market for its Oriental rugs and silver. Obviously these family possessions may have very great marginal utility as objects of use to the necessitous seller. But things to be acquired with the funds obtained from their sale may have even greater utility.

In a very real sense the seller may also be regarded as "a buyer"; he "buys" the money or its equivalent of the party conventionally known as the buyer. The commodity or service for sale represents the seller's purchasing power; with it he hopes to buy the money of the other party to the transaction. But while "buyer psychology" might thus be used in explaining the terms of the seller, the determinants immediately controlling the subjective price of the "professional" seller are directly related to his cost of doing business. He wants to acquire the money of the buyer to cover these costs and, if possible, to enable him to do business at a profit. A prime determinant of seller's subjective price, sometimes decisive in doing business at a profit or a loss, is the seller's withholding power. His ability or inability to withhold a good from the market affects the terms on which he is willing to do business. If he has no withholding power, if every sale is a "forced sale", he is at the complete mercy of what buyers see fit to offer. But if his working capital is ample and his credit resources are strong, he is under no such external compulsion to sacrifice his goods regardless of all costs of doing business. All supplies are produced on the basis of past esti-

mates of the future prices they will bring. Producer-sellers naturally prefer to have their estimates come true. If present prices are disadvantageous to them, and they have confidence that prices will strengthen rather than soften, they may prefer not to sell at present prices. Decision not to sell implies ability to withhold the good from the market. Withholding power is assuredly a determinant of the subjective price of prospective sellers.

Cost of production as a specific determinant of supply. But the principal specific determinant is the seller's cost of making a good available to the buyer. If the seller is a merchant, his cost includes the price he directly or indirectly paid the manufacturer or other producer, together with his own cost in offering the good for sale. A subjective price based upon the total cost of supplying a good in the market is an anticipation or hope on the part of the seller. Regardless of what it may have cost to put a good on the market, the seller can get no more for it than some buyer will give. He can sell no more units of a good at any price than buyers will take. The ultimate decision to buy or not to buy, and at what price to buy, rests with the buyer and not the seller. But the seller is by no means passive in the matter. He has his own ideas as to what prices ought to prevail. His success depends upon getting prices that will cover costs or of keeping his costs within the prices that he can reasonably expect to get. To this end he always estimates the utility of his products to the buying public and then seeks through skilful advertising and salesmanship to influence the opinion of the prospective buyer and thereby to enhance the marginal utility of the good to him. Sometimes, however, goods must be sold without reference to cost and sellers must accept a loss.

In a typical competitive market for consumers' goods there are many buyers and many sellers. Some prospective buyers find that their subjective prices are too low to enable them to become actual buyers under the conditions of the market. On the other hand, some prospective sellers find that their subjective prices are too high to permit them to become actual sellers under prevailing market conditions. Again there are prospective buyers who find that under the conditions of a competitive market they do not need to pay as much

as they would actually be willing to pay if it were necessary. Similarly, there are potential sellers who find that, market conditions of demand and supply being what they are, they can obtain prices higher than those at which they would actually be willing to sell if it were necessary. Finally, there are both prospective buyers and sellers who find it barely worth while to buy or sell at the prices that come to prevail in the market. In the technical language of economics, which is growing increasingly familiar in the market-place, there are sub-marginal, super-marginal, and marginal buyers and sellers. Who are the marginal buyers and sellers of the market-place? Identification of them will serve to differentiate the others as well. The marginal buyer is the buyer whose subjective price coincides with the market price. At a specified price he is the buyer who can barely afford to buy and who would drop out of the market if the price were any higher. Similarly, the marginal seller is the seller whose subjective price coincides with the market price. At a particular price he is the seller who is just barely willing to sell and who would withdraw from the market if the price were any lower. The significance of these distinctions lies in this fact: for an *existing* supply of goods to be sold, the market price must be low enough to attract the most reluctant prospective buyer, the marginal buyer or group of marginal buyers, whose purchases are necessary in order to dispose of the supply. In marketing 200,000 automobiles of a certain model in the low-price automobile field, a price must be found not merely such that 50 per cent or 75 per cent of the supply can be sold but a figure at which the total supply can be marketed. This figure, say \$800, is the price of the marginal buyers. For an existing supply of goods market price tends to be set by the subjective price offers (expressing their marginal utilities within the range of their purchasing power) of the marginal buyers.¹²

¹² There are many margins in economic relations and economic analysis. It may help to clarify matters by noting that so far in this chapter two concepts of the margin have been employed: the marginal importance of a single unit to an individual, and a competitively established market margin through the interactions of buyers and sellers with varying subjective prices. *Marginal utility* and *marginal productivity* (a term introduced in the next chapter) illustrate the first type of margin, an individual margin measuring the importance of a single unit of a good to some person. The expressions *marginal buyer*, *marginal seller*,

But although marginal price-offers and marginal selling prices have something to do with market prices, it must not be inferred for a moment that only those who offer to buy and sell on these terms are the causative factors. All the other actual buyers and sellers (sometimes called infra-marginal buyers and sellers) help to fix the market price. Herbert J. Davenport has expressed the thought that margins are never exclusive price determinants, in language that deserves to be remembered:

At the most, the market price is simply commensurate with the marginal offer or with the marginal selling price. It is not the result of either more than of the other; demand has no more to do with price than has supply. Nor is the price rightly to be regarded as the result of both margins together. It is the result of all the price offers over against all the commodities offered. Price is adjusted *at* the margin and not *by* the margin—where, indeed, either manner of statement accurately holds. To assert that these marginal traders are, as against the opposing in-pressing volumes of commodities and of purchasing power, the causal facts in fixing the price calls to mind *Æsop's* tale of how the fly sat on the axle tree of the chariot and said, "What a dust do I raise!"¹⁸

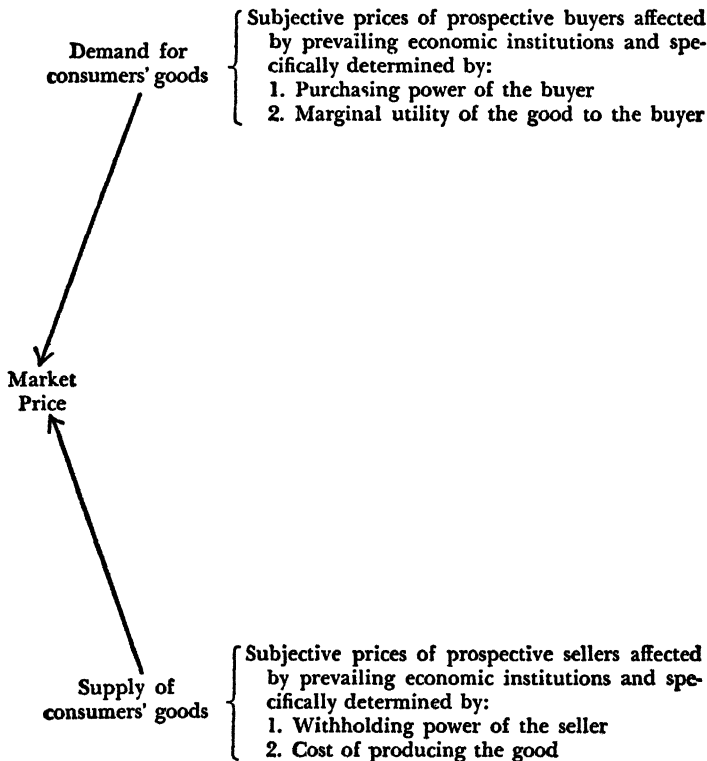
The preceding qualitative analysis of demand and supply, which has stressed utility and cost as price-determining factors in a given market at a given time, implies that neither demand nor supply can be neglected nor underemphasized in the explanation of price. Perhaps the best-known figure of speech illustrating the complete interdependence of demand and supply, which has proved delightfully illuminating to thousands of students of the theory of value, is the scissors simile of Alfred Marshall.

We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that when one blade is held still, and the cutting is effected by moving the other, we may say with careless brevity that the cutting is done by the second; but the statement is not strictly accurate, and is to be excused only so long as it claims to be merely a popular and not a strictly scientific account of what happens. . . .

marginal producer, margin of production, margin of cultivation or utilization (some of these terms will be used and explained in subsequent chapters) illustrate the second type of margin, the margin located through the competition of the market.

¹⁸ H. J. Davenport, *Economics of Enterprise* (New York: The Macmillan Company, 1913), p. 95.

We may conclude that, *as a general rule*, the shorter the period which we are considering, the greater must be the share of our attention which is given to the influence of demand on value; and the longer the period, the more important will be the influence of cost of production on value. For the influence of changes in cost of production takes as a rule a longer time to work itself out than does the influence of changes in demand. The actual value at any time, the market value as it is often called, is often more influenced by passing events and by causes whose action is fitful and short lived, than by those which work persistently. But in long periods these fitful and irregular causes in large measure efface one another's influence; so that in the long run persistent causes dominate value completely. Even the most persistent causes are however liable to change. For the whole structure of production is modified, and the relative costs of production of different things are permanently altered, from one generation to another.¹⁴



THE MARKET FOR CONSUMERS' GOODS

¹⁴ *Principles of Economics*, 7th ed. (London: Macmillan and Co., Ltd., 1916), pp. 348, 349-350.

The foregoing diagram summarizes the main sequence of ideas in the preceding analysis of market price, particularly the price of consumers' goods.

QUANTITATIVE ANALYSIS OF MARKET PRICE IN A GIVEN MARKET AT A GIVEN TIME

When the subjective price of a good to a prospective buyer is equal to or greater than the subjective price of that good to a prospective seller, an exchange between these two is possible and a market price can be established through bargaining. Bargaining is not to be identified either with haggling over price or with the "bargain counter" which advertises cut prices. It is rather to be identified with the mental processes of conviction and persuasion by which men "strike a bargain", i. e., reach an agreement. The price bargain is an agreement between buyer and seller which settles what each shall give and receive in the transaction to which they have become parties. The more frictionless or highly competitive the market the narrower is the subjective price range within which the minds of buyer and seller must meet. In a perfect market the price-offer of the marginal buyer and the reservation price of the marginal seller coincide. But there are many markets that are not competitive, and there are few so perfect as to preclude a bargaining area.

Every market price is the resultant of the interaction of the forces of demand and supply, which are constantly working to achieve a price equilibrium. Every change in either the demand or the supply necessitates a new price adjustment. Demand and supply are human forces, since they express the terms on which human beings are willing to enter upon the contractual relations of buyers and sellers. All of the countless millions of market transactions fall into one or another of four possible cases: the case of one buyer and one seller, of several buyers and one seller, of one buyer and several sellers, and of several buyers and several sellers. Market price must be quantitatively analyzed and measured in each.¹⁵

¹⁵ For the same approach to the problem of price determination in the market

The case of one buyer and one seller. No simpler market case can very well be imagined than that of one buyer and one seller, when the former has enough purchasing power to give market effect to his marginal utility for the good the seller offers him. Let us suppose the commodity in question to be a used automobile. If the buyer's maximum subjective price for this car, which has seen better days, is \$100 and the seller's minimum is \$80, it is clear that a deal is possible. But in all probability, at least if he is economically wise, the prospective buyer does not begin negotiations by broadcasting his maximum price offer. If he did, the seller would of course at once accept it, since it is twenty dollars above his own minimum price. In an individual transaction of this sort the seller may also not have announced his minimum price. Both parties may prefer to "feel each other out" by offering less than the buyer is really willing to pay and by asking more than the minimum the seller is really willing to take. The better trader gets the advantage in the bargain. The price may conceivably be \$100 or \$80 or any price between these two. If the buyer is the better bargainer, it will be closer to \$80 than to \$100; if the seller is the better bargainer it will be closer to \$100 than to \$80. Within the limits set by the buyer's maximum and the seller's minimum, and upon the assumption that the former exceeds the latter, the exact price will turn on the relative bargaining skill of the buyer and the seller.

The case of several buyers and one seller—"seller's monopoly". Somewhat more complex is the case of several buyers and one seller. It introduces competition on the demand side. The seller, however, is unopposed, since he has a monopoly of the good or goods for sale. The seller may have a single good for sale, several identical but non-reproducible goods, or freely reproducible goods. Let us suppose that the used automobile of the preceding illustration is wanted not by one but by five prospective buyers. In this instance we may suppose that the seller has no reservation price but is willing to let the automobile go for any price that it will bring at an auc-

tion. Let us further assume that the maximum subjective prices of the five possible buyers are as follows:

Buyer A will bid as high as \$100.

Buyer B will bid as high as \$ 90.

Buyer C will bid as high as \$ 80.

Buyer D will bid as high as \$ 70.

Buyer E will bid as high as \$ 60.

It is the function of the auctioneer (the seller or his agent) by all the artful devices of his trade to stimulate rivalry among the potential buyers and to "knock the automobile off" to the highest bidder. It is apparent from the maximum price offers indicated that ultimately the bidding rests exclusively between buyers A and B. If B bids his maximum price, \$90, before A does, buyer A is in a position to raise his bid and will be unopposed at any price over \$90 and not in excess of \$100, which is his own maximum. If buyer A, however, should bid \$90 before B was able to enter his maximum bid, the automobile would be sold to A for \$90 because no other buyer is disposed to raise his bid. The general price rule in such cases is that the price must be high enough to exclude all but the highest bidder.

If the single seller has not one but several fairly similar though non-reproducible goods for sale, a variety of prices or a uniform price is possible depending upon the method of selling the goods. Let us imagine ourselves present in the sales rooms of the Grant Art Galleries of Chicago. (As this is being written a bulletin has just come to the writer's desk announcing an auction sale of fine period furnishings from collections of the Duke of Wellington and other British notables.) "An Aubusson love seat, covered in rose with floral design, in the style of Louis XVI" arrests our attention. There are five fairly comparable love seats in this magnificent collection of furnishings, differing slightly in decorations and finish, but all in equally good condition and of substantially the same value. Of the possible buyers present at the auction the maximum price-offers of the six highest bidders among a group of fifty or more interested buyers are the following (naturally these subjective prices must be

inferred from the actual bidding because the prospective buyers do not announce them in advance):

Buyer A's maximum price is \$300.

Buyer B's maximum price is \$290.

Buyer C's maximum price is \$275.

Buyer D's maximum price is \$250.

Buyer E's maximum price is \$235.

Buyer F's maximum price is \$200.

If the sofas are sold singly, as is the custom at auctions, and each prospective buyer bids whatever he can or finds necessary, the sofas will sell at different prices. The first will sell for \$290 or better, but not to exceed \$300; the second for \$275 or better but not to exceed \$290; the fifth for \$200 or better but not to exceed \$235. This is upon the assumption that the auctioneer recognizes only the first bid at a given figure even though there are several persons who might be willing to bid the same amount. In this case, as assumed, successive auction prices drop, which in the end proves disconcerting to the higher and more eager bidders when they see the greater good luck of Buyer E for example. But conditions might easily be different. Any one bidder does not know how many others will bid, what their upper price limits are, and how many of the bidders are holding back, thinking that subsequent prices may be lower. Consequently the more eager and interested buyers are afraid to run the risk of waiting for the sale of the last sofa or two, because the bidding may be more spirited.

If the love seats are not sold at auction but are put on sale by a regular dealer in antique furniture, the problem of price arises in another form. What price can the dealer reasonably hope to get for them? If his prospective customers have the subjective prices indicated in the auction illustration and he guesses or judges the situation with remarkable acumen, he could place a price over \$200 but not in excess of \$235 upon each of the five sofas and dispose of the entire lot. If his price were set in excess of \$235 he would find that he could not sell all five sofas. If all of the sofas are to be sold at a uniform price, the maximum price of the buyer necessary to dispose of the lot of five (Buyer E) will set the upper limit of the market price.

The practical problem of the seller is to guess it as closely as he can.

If the single seller in "the case of several buyers and one seller" offers a good for sale which he can freely reproduce, we have the typical monopoly situation. The monopolist controls the supply but not the demand. Usually the demand is elastic because of the possibility of using substitutes for the monopolized good or of restricting one's consumption of it. Demand is elastic when small changes in the price asked by the seller result in large changes in the demand. This possible elasticity in the demand for his product limits the monopolist in his determination of price. The monopoly price of goods the demand for which is relatively elastic must be low or it will smother the demand. The monopoly price of goods the demand for which is relatively inelastic may be high. It is to the interest of the monopolist so to adjust his output to the existing demand as to secure the highest net returns. In a certain market for a monopolized commodity it is estimated that there could be sold the number of units indicated in the first column of the following table, at prices given in the second column, and produced at prices per unit stated in the third column. A little calculating, which the author will spare the reader, will give the results set forth in the last three columns. The price that will net the monopolist the highest return is fourteen cents per unit. He can sell more units if he lowers the price, but his net revenue will be less. He can make a bigger profit per unit if he advances the price beyond fourteen cents, but his sales will fall off sharply, and his net revenue will also be less.

<i>Number of Units</i>	<i>Selling Price per Unit</i>	<i>Cost per Unit</i>	<i>Total Gross Receipts</i>	<i>Total Costs</i>	<i>Net Revenue</i>
1,000	\$.55	\$.17	\$ 550.00	\$ 170.00	\$ 380.00
1,350	.45	.16	607.50	216.00	391.50
2,000	.35	.15	700.00	300.00	400.00
4,000	.30	.13	1,200.00	520.00	680.00
6,000	.25	.12	1,500.00	720.00	780.00
10,000	.20	.11	2,000.00	1,100.00	900.00
20,000	.15	.105	3,000.00	2,100.00	900.00
25,000	.14	.10	3,500.00	2,500.00	1,000.00
27,000	.13	.095	3,510.00	2,565.00	945.00
30,000	.12	.09	3,600.00	2,700.00	900.00
35,000	.11	.085	3,850.00	2,975.00	875.00

While the monopolist's indicated course of action seems clear enough from this simple illustration, it is not nearly so easy for him to decide what to do under the actual conditions of the market. He does not really *know* the demand at these various assumed prices; he can only *estimate* it. He lives in dread of the twin foes of monopoly, competition and control. He cannot afford to make profits so great as to invite competition nor to arouse public clamor for regulation. Consequently he must temper his price policy to the winds that blow. At best his price-fixing can only approximate the price that will yield the highest net returns to him over a period of time.

The case of one buyer and several sellers—"buyer's monopoly". The case of one buyer and several sellers is comparatively rare. The single buyer is in a fortunate position when several sellers are competing for his business. Perhaps the closest approximation to this case is furnished by a local market in which a private or public buyer calls for sealed price-offers on materials to be supplied or a construction job to be undertaken. The general price rule in such situations is that, "other things being equal", the price is fixed by the lowest offer made by any seller.

The case of several buyers and several sellers. The most typical case of the market is the case of several buyers and several sellers. Buyers are in the market to procure the same goods; sellers to dispose of them. Each seeks to do so on the most advantageous terms to himself. Such a market is characterized by two-sided competition in contrast to the one-sided competition of the monopoly cases just considered. Produce markets, boards of trade, commodity markets, stock-exchanges, other exchanges, such as those for coffee, cotton, and sugar, are familiar examples of markets distinguished by the presence of many buyers and sellers. Retail stores also illustrate this case, although it may seem at first glance as if there were an absence of many sellers in any store that buyers patronize. An individual store, however, is likely to be only one of a number of similar stores in its trade area; the seller in reality is in competition with other sellers for the patronage of local buyers.

The interaction of buyers and sellers in the establishment of market price is evident enough in so active a market as the Chicago

Board of Trade or the New York Stock Exchange. Here buyers and sellers can be seen and heard shouting price-offers to buy and sell at each other and reaching agreements concerning their transactions. But it is not quite so apparent what the buyer has to do with the determination of price in the ordinary retail store. Prices seem to exist in advance of his coming, or at least the price labels all indicate what the seller wants for his goods. Is not the prospective buyer restricted to the choice of taking the goods at the indicated prices or of leaving them with the merchant? This is largely true, but it is a most influential alternative. No merchant wants goods left on his hands. There is no profit in this. He is interested in sales. Consequently his prices are mere hopes and anticipations, largely set by what it costs him to do business; they are tentative prices which he hopes the buyers will be willing to pay. By his decision to buy or not to buy at the seller's announced prices the buyer in a retail store has a great deal to do with the prices that are charged. Indeed up-to-date merchants exhaust every possible resource in setting prices that they think will prove both acceptable and attractive to prospective buyers.

One of the most distinctive characteristics of a truly competitive market is the existence of a uniform price in the market at any given moment. If buyers and sellers dealt with one another in isolation, a great variety of prices would obtain. When markets break down, this is exactly what happens. We say under such circumstances that "the market has gone to pieces"—there is lack of uniformity of price. But in a perfect market, or one as nearly perfect as it is possible to achieve, communication among buyers and sellers results in reasonable uniformity of prices. The uniformity is not absolute, but competition unceasingly works toward this objective. If there should be any temporary lack of price-uniformity, the low-priced good would draw buyers from the high-priced good of the same class. Dealers with the high-priced goods would have to reduce their prices to meet competition as long as it lasted.

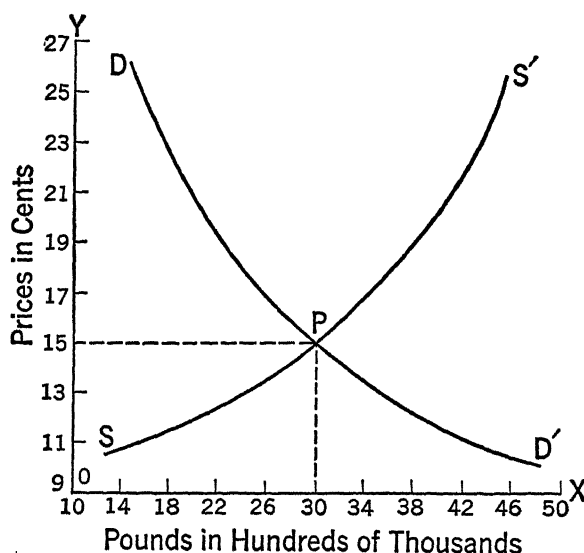
The competitive interplay of several or many buyers and sellers, which tends to establish price-uniformity in a given market at a given time, may be conveniently illustrated by the following as-

sumed demand for and supply of cotton in a certain southern market on a given date.

DEMAND AND SUPPLY IN A GIVEN COTTON MARKET		
<i>Price in cents</i>	<i>Demand (in pounds)</i>	<i>Supply</i>
25	1,600,000	4,700,000
23	1,700,000	4,500,000
21	2,000,000	4,300,000
19	2,200,000	4,000,000
17	2,500,000	3,600,000
15	3,000,000	3,000,000
13	3,700,000	2,400,000
11	4,500,000	1,600,000

The reader will recall that the total demand of the market has been described as a schedule of the quantities of a good which prospective buyers are ready to purchase at each designated price. Similarly, the total supply has been defined as a schedule of the quantities of a good which prospective sellers are ready to sell at each designated price. Unless the prospective buyers and sellers operating in a given market announce all the terms on which they are willing to buy and sell, such schedules must be hypothetical except for the prices at which transactions actually occur. The schedules for the most part represent estimates of the quantities that could and would be bought and sold at the indicated prices. If some market referee could know the total demand and supply at all possible prices of the potential buyers and sellers represented in a given market (as in the above illustration), it would be relatively easy to set a satisfactory price. Without such omniscience there must be "trial-and-error" experimentation in the transactions of the market. Just as water seeks its own level, so the forces of demand and supply work ceaselessly to establish an equilibrium price.

Since each prospective buyer and seller, if he is really to participate in the market, must formulate a more or less definite schedule of subjective prices, the demand and supply schedules of a given market are composites of the subjective prices of all prospective buyers and sellers. How a common market price emerges from such composite demand and supply can best be shown by reducing the



DEMAND AND SUPPLY IN A GIVEN COTTON MARKET

above demand and supply schedules to graphs. This is done in the accompanying diagram.

Prices per pound are indicated on the OY axis and the number of pounds of cotton which buyers will take or sellers will offer on the OX axis. The curve DD' is the locus of the subjective prices of prospective buyers—the prices at which they stand ready to take the indicated number of pounds of cotton. Similarly, the curve SS' is the locus of the subjective prices of prospective sellers—the prices at which they stand ready to deliver the specified number of pounds of cotton. Each curve shows the relation between prices and the quantity of cotton wanted or offered for sale at such prices. Any point on the demand curve, DD', may be read by dropping perpendicular lines to both the OY and OX axes. The point of intersection with the OY axis indicates the price, and the point of intersection with the OX axis the number of pounds of cotton wanted at such price. Together these points of intersection constitute the ordinate (on the OY axis) and the abscissa (on the OX axis) of the selected point on the demand curve which is being read. In the diagram, point P, which is common to both the demand and supply curves

because it is their point of intersection, indicates that at a price of fifteen cents per pound, 3,000,000 pounds will be taken (as read on the demand curve) and 3,000,000 pounds will be offered (as read on the supply curve). Therefore, fifteen cents is the price which effects an equilibrium between demand and supply. It becomes the market price for cotton in this particular market on the given day under the prevailing conditions of demand and supply.

Suppose that a doubting Thomas as far as this reasoning is concerned insists that a price of seventeen cents can prevail in the market. Careful reading of the curves shows that at seventeen cents only 2,500,000 pounds of cotton will be taken but 3,600,000 pounds will be offered. It is obvious that this would create a situation of unstable equilibrium and that the excess supply would force down the price. If a particular buyer has any further doubts about what price market conditions justify, he need only offer to buy cotton at seventeen cents. He would soon be overwhelmed by sellers anxious to dispose of their cotton at this price. In self-defense he would have to lower his price-offer. If on the contrary it be assumed that a price of thirteen cents could prevail, the same line of reasoning will show that a price of thirteen cents would represent an unstable equilibrium and that the excess demand would force an advance in price. At thirteen cents 3,700,000 pounds will be taken but only 2,400,000 pounds will be offered. The excess buyers will bid up the price. If any seller is not convinced, he need only offer to sell cotton at thirteen cents. The deluge of buyers eager to buy at this attractive price would soon compel him in self-interest to advance his price.

In a competitive market, price is set at the point of equilibrium between demand and supply. The equilibrium price is the price at which the largest volume of business can be done. At this price no one wishing to buy will fail to secure the good he wants; no one willing to sell will fail to find a buyer. This is true only of the equilibrium price. In the cotton market illustration, fifteen cents is the point of perfect adjustment between demand and supply; it equates demand and supply at 3,000,000 pounds each. Every other proposed price leaves them in unstable equilibrium. At seventeen cents, for example, there are sellers who would like to dispose of their cotton but can find no buyers, since there are not enough to go around.

And at thirteen cents there are buyers who would like to procure cotton but can find no sellers, since there are not enough willing to sell at this price to satisfy the demand. Only the equilibrium price, the point of perfect adjustment between demand and supply, "clears the market". It leaves no disappointments in its wake, for at this price everyone willing to buy has his opportunity, as has everyone willing to sell.

This of course does not imply that there are no disappointed dealers in a competitive market. The disappointment, however, lies in not being able to buy at as low a price as they had wanted or to sell for as high a price as they had hoped. The disappointment does not lie in failure to do business in the cotton market, if they are willing to trade at fifteen cents. Some potential buyers and sellers, moreover, fail to reach an agreement because their subjective prices are either too low or too high under prevailing market conditions.

Except under the most unusual conditions an equilibrium price for the market as a whole is not reached instantly. It is frequently said that "it takes time for the market to settle down". During the settling-down period the prices of individual transactions may vary appreciably from the ultimate equilibrium price. But this is only a matter of time. Ignorance or carelessness on the part of either buyers or sellers, as far as their market possibilities are concerned, may of course also result in individual prices that are above or below the prevailing market price. But the equilibrium price rules the market. Changes in either the demand or the supply, or in both, inevitably lead to new equilibrium prices in the endless transactions of the market.

NORMAL PRICE

Market price contrasted with normal price. The discussion of this chapter has so far largely been concerned with the explanation of market price resulting from the interaction of demand and supply in a given market at a given time. The conclusion has just been reached that in a competitive market there is an irresistible tendency for market price to be established at the point of equilibrium between demand and supply. But is there any way of telling in advance what this equilibrium price will be? If we may assume a fairly

steady demand for a good, is there such a thing as a normal price? Market price is the price of the moment conditioned by demand and supply. Normal price is the price that prevails in the long run. Market price is temporary; normal price is relatively more permanent. John Stuart Mill drew this distinction when he said: "Besides their temporary value, things have also a permanent value, or as it may be called a natural value, to which the market value, after every variation, always tends to return; and the oscillations compensate for one another, so that on the average, commodities exchange at about their natural value."¹⁶ The more permanent values of the market, if there be such, are of greater importance to us than the passing values or prices of the moment. Market prices may at times be either too high or too low for protracted maintenance at such levels. They are regarded as abnormal. An erratic demand occasioned by the vogue of the moment may force prices up. A temporary local over-supply may force prices down. Competitive market prices over a period of time tend toward a level which is called normal price. From one point of view, normal price is nothing more than the long-time trend of market prices, since market prices are the only real and objective prices. All other prices are either subjective hopes or abstractions. But the question that insistently demands an answer is: What determines the trend? Why is it sometimes upward and at other times downward? And the answer is this: If we may assume a sustaining demand, it is the cost of producing goods which in the long run determines their normal price.

Normal price as controlled by supply. The forces tending to pull market prices down or to push them up to this normal level originate partly on the supply side of the market. It is the competition of producers for sales that brings about the alignment of prices and costs. If the market price of a good substantially exceeds the cost of producing it, the resulting high profits are bound to invite and stimulate competition. Effective competition will force producers to sell their goods as cheaply as possible. Producers do not as a rule knowingly choose to sell their products at less than cost, and they cannot afford to do so. Costs, therefore, constitute a sort of minimum

¹⁶ *Principles of Political Economy*, edited by W. J. Ashley (London: Longmans, Green and Co., 1909), p. 478.

below which prices do not normally fall. While producers are eager to sell their products at substantial profits, the competitive struggle to get the patronage of new customers and to hold the trade of their old customers forces them to sell at prices that approximate the cost of production. Such costs include not only all the direct outlays in producing the good but also the so-called "wages of management" and necessary profits large enough to induce men to undertake the risks of business enterprise. Total costs, therefore, also constitute a maximum above which prices do not normally rise as long as competition is effective. The price-offers of buyers must normally be large enough to cover costs of production, but at the same time the price-offers do not have to exceed the costs.

Nature of the costs restricting long-term supply. In the long run, then, if goods are reproducible, if productive agents are mobile, and if competition is effective, the price of goods will tend to equal the cost of producing the marginal part of the supply—those final increments of supply which must be produced to satisfy the existing demand. Without such restriction on the meaning of cost of production, its effect upon price is not discernible. The term "cost of production" is commonly bandied about as if it always meant something simple, uniform, and readily ascertainable. But most costs are complex rather than simple; they are far from uniform; and even if the producer knows what they are, which is often not the case, he likes to keep them secret. American cheese, for example, was produced in Wisconsin—which ranks first among the States in the value of its dairy products and so should know the cheese-making business—at costs in 1927 ranging from 2.20 to 3.36 cents per pound.¹⁷ Whose costs of production does normal price tend in the long run to equal? In the production of cheese, or any other commodity, there are low-cost, medium-cost, and high-cost producers. Some of the producers are super-marginal, others are marginal, and still others are sub-marginal. Although the sub-marginal producers are operating at a loss (the marginal producers "break even", and only the super-marginal producers make a profit), they often continue pro-

¹⁷ Henry H. Bakken, *American Cheese Factories in Wisconsin*, Research Bulletin 100, Agricultural Experiment Station of the University of Wisconsin (Madison, 1930), p. 25. Cost data apply only to conversion of milk into cheese.

duction as long as their resources permit in the hope and expectation that for them financially happy days will come again.

To analyze and appraise the significance of costs, as controlling long-term supply and thereby affecting price, presupposes a clear understanding of the nature of costs and their variations in different types of economic enterprise. Costs vary with the volume of production not only of a given business establishment but also of different types of industry. Within the limits of plant capacity, as production increases, costs have a tendency to fall in a given business establishment. Industries differ strikingly in this respect. In some industries, as production increases, costs per unit of product tend to fall, in others to increase, and in still others to remain about the same.

Some of the costs of producing a commodity are direct costs, others are "overhead costs". The same distinction is suggested by the terms "variable" and "fixed" costs. The relation between variable and fixed costs has a pronounced effect upon price as production is increased. Variable costs are expenses which vary directly, although not necessarily proportionately, with the amount of goods produced. They include particularly the costs of labor and materials. Fixed or overhead costs are expenses which do not vary directly with the volume of goods produced. Some of them run on, if the business is to survive, regardless of output. Interest on borrowed capital, outlays for management, maintenance of buildings and equipment, insurance, and taxes illustrate fixed costs. The effect of the ratio of fixed to variable costs upon prices, as production is increased, may be seen from the following illustration. If the fixed costs of a small manufacturing concern are \$400,000 and its variable expenses are \$3 per unit or \$1,200,000 when 400,000 units are produced, it is apparent that the total average cost of production is \$4 per unit. If the plant can produce 800,000 units with no change in fixed costs (\$400,000) and with the same outlay per unit (\$3) for variable expenses, it is obvious that the total outlay will be \$400,000 for fixed expenses plus \$2,400,000 for variable expenses, or a total average cost of \$3.50 per unit. This lower cost is possible upon the assumption made that the fixed costs are not increased as the production is "stepped up". Whenever productive plants are not used up to their

maximum capacity such results are possible. But there is a distinct limit to such cost-cheapening possibilities provided by the full utilization of the plant. If larger productive facilities must be provided to meet the demand, fixed costs will of course also advance.

Supply in industries of decreasing costs. But even more important than the cost-lowering possibilities of an individual plant are the long-term potentialities in this respect of the industry itself, which the single plant merely represents. There are some industries which in the long run tend to be industries of decreasing costs: an increase in the volume of production is achieved with gratifying decreased expense per unit of output. Manufacturing, transportation, and communication are such industries. The *sine qua non* for the achievement of decreasing costs in any industry is the economies which large volume of production makes possible. These economies are not merely the economies of large-scale production in any plant which makes full use of its productive capacity, but also the more important economies that arise through the more intensive development and organization of the industry itself. Specialization of entire plants, strategic location of plants with reference either to materials or to markets, the development of complementary and supplementary businesses, are all means to the attainment of some of these economies, if large volumes of production can be maintained. Large businesses in developing industries are most apt to show decreasing costs per unit of output—and such has been their actual record.

Supply in industries of increasing costs. There are other industries which in the long run tend to be industries of increasing costs: an increase in the volume of production is attended by increased expense per unit of output. The extractive industries in general and agriculture in particular are such industries. When it is necessary to resort to the use of poorer soils and less advantageously located lands, the unit costs of production tend to rise. The same thing is true when lands already in use are worked more intensively by employing more labor and capital upon them—increased product can only be obtained at the price of higher unit costs. The only escape from this consequence—and it is merely temporary—is the introduction of improved methods of production which effect economies. In the development of American agriculture constant improvements in

technique have counteracted and retarded the working of the principle of increasing costs.

Supply in industries of constant costs. Industries or trades of constant costs per unit of output are relatively few in number and unimportant in volume of production. Industries and trades that are necessarily small-scale and in which hand labor preponderates furnish the best example. Of these custom tailoring is typical. Except for variations in the cost of materials each suit of clothes is made with about the same outlay. A substantial increase in the demand would hardly be met by the mechanization of the industry but rather by the employment of more tailors.

Supply as conditioned by marginal costs. That unit costs differ greatly in the same plant, depending upon the percentage of productive capacity utilized and the spreading of the fixed expenses over a larger or smaller product, has been one of the conclusions drawn in the preceding discussion. Another has been that long-term supply is subject to decreasing, increasing, or constant costs, depending upon the character of the industry concerned and the length of time allowed for changes in the volume of production within the industry. Costs, like prices, are in constant flux, with sharp variations among producers in the same industry. In the long run the most efficient producers, who can supply goods at the lowest price, will capture and dominate the market provided they can meet the demand. But only rarely does it happen that the most efficient producer can meet the total demand. Demand is sufficiently strong to requisition the efforts of many producers, with unit costs that are low, medium, and high. Some of these producers (and their costs) are marginal; others operate above the margin, and still others below the margin. Normal price tends to equal the cost of producing the marginal part of the supply, that is, the costs to marginal producers.

Who are the marginal producers, and why are their costs so heavily weighted in setting the price of all producer-sellers? Marginal producers are the producers of the high-cost part of any supply, which it is necessary and economically possible to create in order that the supply may be adequate to meet the demand. Marginal producers find it just barely worth while to continue production.

Their total costs are no more than covered by what they receive for their products. Of all the producers who at least meet their expenses they are the least efficient. Their expense of producing a given commodity is the marginal expense of production. The marginal producers stand in contrast to the super-marginal producers, who more than cover their costs, and to the sub-marginal producers who fail to do so. The latter are "hangers-on" desperately waiting for better days. Marginal producers would withdraw from production, wholly or partly, if in the long run their expenses were not covered.

The only reason the high-cost or marginal producer survives in competition with the low-cost producer is because society cannot dispense with his product. What he produces is needed to help meet the demand of the market for the product concerned. Since he must be paid a price high enough to cover his costs in helping produce the socially necessary supply, every other producer of the same commodity in a competitive market can secure the same price. The market cannot discriminate. So it happens that the expense of producing the marginal part of the supply becomes the normal price. Of course, as previously brought out in this chapter, the price-determining forces of demand and supply merely focus at the margin. Not only the marginal producers but all the super-marginal producers coöperate in locating the margin and thus in fixing the price which producers must have. Were it not for the presence and production of the super-marginal producers at any given price the marginal costs would be even higher.

The relation between super-marginal costs and marginal costs, between marginal supply and demand, and between costs and price may be illustrated as follows. If Class A wheat farmers, supplying a given market, spend an average of \$15 in cultivating an acre of land and get twenty bushels per acre, their cost of producing wheat is seventy-five cents per bushel. If they could produce all the wheat their market demanded, the price of wheat at the farm would not need to exceed seventy-five cents. If Class B farmers and Class C farmers, spending the same amounts, produce only fifteen and ten bushels per acre respectively, their costs of producing wheat are \$1 per bushel for Class B farmers and \$1.50 per bushel for Class C farmers. If the demand of the wheat market is sufficiently strong to

requisition the productive services of the Class C farmers, the price of wheat at the farm must be no less than \$1.50 per bushel. Although the Class A and B farmers could afford to sell their wheat for less than \$1.50, they are not obliged to do so, because the market wants wheat badly enough to demand that the Class C farmers shall produce it. And they can only produce it at \$1.50 per bushel, which becomes the price payable to all producers.¹⁸

Normal price as controlled by demand. Important as is the tendency of normal price under competitive conditions to equal the expense of producing the marginal part of the supply, such costs avail nothing in the explanation of price except upon the assumption that there is a sustaining demand which sanctions their outlay. Market price and normal price are always and everywhere resultants of demand and supply. Demand authorizes and sanctions supply. Implicit in the entire preceding discussion of supply (and costs) as a determinant of normal price has been the assumption of demand as of at least equal significance.

Not only the nature of the supply of a good but also the character of the demand for it has much to do with its price in the long run. Social changes in the consumption and spending habits of people,

¹⁸ The slow but certain tendency of competition to eliminate the high-cost producer wherever possible and to equalize costs among producers lends support to the use of the "representative firm" concept of Alfred Marshall and other economists as a means of measuring normal price. The representative firm is supposed to be typical of all the producers in a given kind of business enterprise. It is neither the leader nor the straggler. It is assumed to be of the most economical size for efficient operation, to be advantageously located, to have fair permanency of existence, and to be managed with average ability. Representative firms are the adults of any branch of business enterprise at the height of their powers. Their costs are typical of the industry as a whole. Higher-cost firms tend to be eliminated. Lower-cost firms are not representative of the industry as a whole because too few in number. Price in the long run—that is, normal price—tends to equal the costs of the representative firm.

During the World War period the government was obliged to fix the prices of some commodities. Its experiences brought the expression "bulk-line costs" into vogue. Bulk-line costs have been described as marginal costs dressed up in statistical clothes. The purpose of the bulk-line cost concept was to eliminate freakish costs from consideration in price-fixing—perhaps the costs of the producers of 10 per cent of the product who could not expect to have prices set in such a way as to protect them. Bulk-line costs were and are generally regarded as costs within which 80 to 90 per cent of the product could be supplied. Such costs were regarded as a fair basis for price-fixing. Cf. F. W. Taussig, "Price Fixing as Seen by a Price Fixer", *Quarterly Journal of Economics*, XXIII (1919), 205 ff.

such as those effected by education, travel, fashion, and advertising, are of great importance in shaping the long-term demand for goods. Of basic importance is the elasticity or inelasticity in the demand for a good. Demand is elastic when slight changes in price are attended by large changes in demand. Demand is inelastic when even large changes in price are accompanied by only small changes in demand. Inelastic is the demand for necessities like bread and salt; for goods like tobacco that have become objects of habitual consumption; and for goods for which there are no adequate substitutes. On the other hand, the demand for luxuries, for non-habitual consumption goods, and for goods for which there are adequate substitutes is elastic. Persons with large incomes do not have to scrutinize individual expenditures closely, and consequently their demand is more inelastic than that of persons with small incomes who must watch over the expenditure of pennies as well as dollars.

The character and the volume of the demand for a good determine what it is profitable to produce. Supply in the long run must adjust itself to the demand. Elasticity or inelasticity of the demand profoundly affects the decisions of producers in such basic matters as increasing or decreasing the volume of production in the face of market tendencies. Shall the producers increase their output for the purpose of reducing costs per unit as a result of the economies of mass production? If the demand is elastic, it is good business judgment to do so. When unit costs are advancing, is it wiser to curb production than to expand it? If the demand is elastic, restriction of output is the wiser decision to avoid loss; if the demand is relatively inelastic, producers may safely go ahead. It would be worth fortunes to producers really to know in advance of production the precise degree of elasticity in the demand for their products. High prices may defeat themselves. Business men are usually inclined under competitive conditions to stimulate sales by lowering prices. Elasticity or inelasticity of demand carries the key to the situation. Modern business men are deeply concerned not only with reducing their costs but also with learning all they can about the probable volume of the effective demand for their products.

To the question hoary with age but perennial in interest, Is demand or supply the more important in the explanation of price?

there can be only one really satisfactory answer: They are equally basic. Both demand and supply, at a given moment and over periods of time, both utility and costs, both marginal utility and marginal costs are indispensable in the explanation of value and price. The question is simply another instance of the proverbial hen-versus-egg conundrum. It is true that demand calls forth supply, that utility sanctions cost. But it is equally true that there is neither economic value nor market price except as the supply of a good is limited in relation to the demand for it, and supply is usually limited in amount by the fact that it costs something to produce a good. Collective demand and collective supply are interacting and interdependent forces in the establishment of both market price and normal price. To neglect either in the theory of value and price is to offer a distorted analysis of the fundamental problem of economic science.

CHAPTER XIX

WAGES

WAGES AND THE PROBLEM OF DISTRIBUTION

The determination of the wages of labor, the interest of capital, the rent of land, and the profits of business enterprise constitutes the problem of distribution in economics. In part it is the problem of ascertaining the *rate* of return to the recipients of wages, interest, rent, and profits, which is essentially a price problem. But it is also a problem of allocation,—of explaining the *size* of the share of any jointly produced goods that goes to the laborer, the capitalist, the landowner, and the entrepreneur. What is known as the theory of distribution concerns itself with the rate of return to these various productive factors and with the size of the several distributive shares. Closely related to this fundamental problem of *distribution as a matter of apportionment* is the further problem of the distribution of income and wealth among the persons and social groups composing the population of a country. It is obvious that the incomes men receive, whatever their specific form, ultimately affect the *personal distribution of wealth*. No problem in economics has greater theoretical or practical interest than the problem of distribution. Men coöperate in the production of goods in order that there may be much to distribute. They fight over the distribution of goods in order to increase their own shares as much as possible. Individuals bargain as effectively as they can, organized groups apply whatever pressure they can command, and frequently such economic action, whether individual or collective, is supplemented by political measures affecting the distribution of income and wealth. In the post-war years particularly, both in Europe and in the United States, political steps have repeatedly been taken to provide direct relief, doles, and work relief, to affect the size of the distributive shares, and through taxation to bring about a redistribution of wealth.

The process of distribution, whether effected by economic action or affected by political measures, bristles with difficulties. What constitutes a fair wage? Should minimum wage rates be established by law? Is it desirable to maintain private property in capital goods and thus to perpetuate the private receipt of interest? Is it fair to legalize an interest rate of $1\frac{1}{2}$ to 3 per cent per *month* on the small loans of highly necessitous borrowers when large borrowers with ample credit can borrow whatever they want for 4 or 5 per cent per *year*? Is the private receipt of rent justifiable, when land is the gift of God to man, or should the government appropriate for the common use all the so-called economic rent? Is the individual entitled to the unearned increment in land values? If the institution of private property in land is maintained, should society compensate a landowner for any unearned decrements in land values which befall him through no fault of his own? Is there any real upper limit to fair profits? May society justifiably appropriate all the so-called excess profits over the returns of years that are regarded as normal? These are a few of the many searching questions involved in the economic and political consideration of the distribution of income and wealth. No answers have been suggested that have elicited unanimous approval.

Distribution as a process of apportioning the value of any product among the agents or activities of man contributing to its production is essentially a process of valuation—the process of placing a value upon the functional services of man in producing the desired goods. If a newly manufactured automobile ultimately sells for \$1,000, what part of the sale price represents the total labor cost of making and selling the car? What part is the cost of the materials? How much is absorbed by the overhead costs, including interest on the invested capital, depreciation, and taxes? What percentage is taken in profits? More important than the mere determination of the size of these shares is the explanation of what makes wages and interest, rent and profits, what they actually are. Only through such explanation is it possible to arrive at a judgment concerning their adequacy or necessity. It is such practical price cases, literally without end, that constitute the raw material for theories of distribution.

THE NATURE OF WAGES

The distributive share that provides income and purchasing power for the largest number of persons in industrialized countries is wages. Wages, usually expressed in money, are the compensation paid workers for rendering their services to others during specified periods of time. Some workers receive salaries instead of wages. Psychologically, there is a considerable difference; logically, both wages and salaries are returns for the rendition of human services in production.¹ In considering the subject of money wages it is important to distinguish between wage rates and yearly wages. Wage rates may be set at a given price per unit of time, as when a carpenter is paid \$1 per hour. Or they may be set at a stipulated price per piece of work completed, as when a coal-miner is paid eighty cents per ton of coal mined. Whether wages are paid by the hour or the piece, and whether they are relatively high or low, it is even more important to know how steadily workers are employed at these rates. If unemployment is periodic and protracted, high wage rates may still yield only low annual incomes. Of course it is the amount of his yearly wages that determines a worker's scale of expenditures and standard of living. The determination of wages, whether on a time rate or piece rate basis, presents a special problem of price. The total distributive share of labor is both a matter of price and of regularity of employment.

From the standpoint of the laborer's well-being it is also important to distinguish between money wages and real wages. Money wages are nominal wages; they are merely payments reckoned in the monetary unit of the country concerned. Real wages are the purchasing power of the money wages received. Since the prices of food, clothing, housing, and other necessities, comforts, and luxuries change materially, and since money wages may not fluctuate correspondingly, there is often a wide variation between the nominal wages and the real wages. Money wages may rise while real wages

¹ The word "salary", derived from *salarium* (L.), has a lowly origin. Salt was once a valuable commodity. According to Webster's Dictionary salary payments were salt money, "money given to the Roman soldiers for salt, which was part of their pay". It is still said of a man who gets more than he earns, "That man isn't worth his salt."

fall. Less frequently and only temporarily money wages may remain stationary or fall while real wages advance. The accompanying table published by Professor Paul H. Douglas in his *Real Wages in the United States* shows the trend over a period of thirty-seven years of the relative money earnings contrasted with the real earnings of labor.

AVERAGE ANNUAL EARNINGS, RELATIVE MONEY EARNINGS, AND REAL EARNINGS OF EMPLOYED WAGE-EARNERS IN ALL INDUSTRIES ²
(Weights—number employed in each industry in 1890)

<i>Year</i>	<i>Average Earnings (in dollars)</i>	<i>Relative Earnings (1914=100)</i>	<i>Real Earnings (1914=100)</i>
1890	486	72	97
1891	489	73	100
1892	497	74	101
1893	483	72	100
1894	457	68	97
1895	478	71	102
1896	472	70	98
1897	474	70	98
1898	482	72	99
1899	493	73	100
1900	503	75	98
1901	518	77	99
1902	530	79	99
1903	548	81	97
1904	546	81	98
1905	559	83	101
1906	571	85	99
1907	593	88	97
1908	564	84	96
1909	594	88	101
1910	627	93	101
1911	624	93	97
1912	638	95	99
1913	666	99	100
1914	673	100	100
1915	672	100	102
1916	748	111	104
1917	866	129	100
1918	1,088	162	103
1919	1,245	185	104

² Paul H. Douglas, *Real Wages in the United States, 1890-1926* (Boston: Houghton Mifflin Company, 1930), adapted from Table 146, p. 391.

1920	1,459	217	105
1921	1,321	196	111
1922	1,291	192	116
1923	1,379	205	122
1924	1,375	204	121
1925	1,409	209	121
1926	1,444	215	124

FUNCTIONING OF THE LABOR MARKET IN THE DETERMINATION
OF WAGES

Wage rates like commodity prices are set in the market. There are many labor markets, each with its own wage rates and wage scales. Wherever and whenever workers offer their services to interested prospective employers for a price, a labor market may be said to exist. The labor market may be local, small, and unorganized, such as may be witnessed in the employment office of a canning factory which has advertised for workers whom it wishes to employ during the short vegetable canning season. Or it may be a large-scale and highly organized labor market, such as is furnished when a group of coal operators meet representatives of the organized miners and bargain collectively concerning the wage scales that shall prevail in the coal-mining industry for a designated period of time. Both of these illustrations suggest the essential fact about a labor market: a common meeting-ground for prospective employers and employees to effect a purchase and sale of human services if the terms are mutually acceptable. Usually employer and employees meet in person or by proxy through designated representatives. At times communication is established through some other means. A given labor market is neither a market for labor in general nor for any kind of labor that workers can do, but a market for the services of men able and willing to do the available types of work. The functioning of a market is evidenced by the transactions that take place within it. The number or magnitude of its transactions attests the importance of a market.

The wage transactions of the labor market are contracts. To every such contractual transaction there are parties: actual, prospective, and regulatory. The actual employer and employee are the contracting parties. But typically the transaction is effected and in-

fluenced not merely by two but by five parties.³ The terms of the actual contracting parties are affected by the presence of other potential employers or employees who have alternative work to offer or services to render. In addition the state through government provides the institutions that make such contracts enforceable and frequently itself limits their terms.

The prospective parties to a wage transaction, both employers and employees, formulate their subjective prices, which represent the terms on which they are willing to become the actual contracting parties in a wage transaction. Usually in a transaction of any importance these are carefully formulated in advance. Much investigation and study may have preceded their precise expression. In labor controversies over wages both employers and employees may announce their terms and then fight to make them prevail in the market. At other times one party or the other, usually the employee, accedes to the terms of the stronger party in the wage transaction. In so doing he makes the employer's subjective price his own for the purpose of the immediate transaction. Subjective prices in the labor market, or in any other market, are simply the terms on which men are willing to do business. These subjective prices find expression in the demand for and supply of labor. The important question at issue is: What determines the subjective prices of prospective employers and employees?

Wage theory largely consists in setting forth as adequately as possible the determinants of the subjective prices of the parties to a wage transaction. These determinants are both general and specific. The general determinants make up the institutional setting of the labor market. The strength or weakness of custom, the exercise or non-exercise of public authority, the presence or absence of monopoly, the effectiveness or non-effectiveness of competition, and the strength or weakness of bargaining associations have much to do in the determination of the subjective prices of prospective employers and employees. Customary wage rates in a community, such as forty cents per hour for unskilled labor, influence the subjective prices in future transactions of both employers and

³ Cf. John R. Commons, *Legal Foundations of Capitalism* (New York: The Macmillan Company, 1924), pp. 65-68.

employees. Public authority may intervene and for certain types of work set a lower limit to the wage scale, as it has in some States that have enacted minimum wage laws for women and as it did under the codes of the National Industrial Recovery Act. If the prospective employer has a partial local monopoly in the labor market or the employees have such a monopoly, this fact affects the subjective price of the party having the monopoly. If competition for workers is keen, the wage rates offered tend to rise; if competition between workers for jobs is sharp, the wage rates they will accept tend to fall. When workers are organized into effective bargaining associations the subjective prices of labor are apt to be materially higher than when bargaining is individual and weak. These general determinants of the subjective prices of prospective employers and employees are powerful influences in the labor market in helping fix the rates at which human services are bought and sold. But there are even more important specific controlling determinants provided by what the employer can afford to pay and the employee is willing to accept. These set the limits of the wage bargain and constitute the core of wage theory.

Whatever interaction of forces results in the establishment of a given wage rate, the prevailing market wages (the "going" rates) in turn influence the subjective prices of both employers and employees in subsequent wage transactions. The interaction of subjective prices results in the establishment of present wage rates; the rates so established in turn affect future subjective prices.

The approach to the problem of wage determination that has just been suggested may be conveniently summarized as involving a study in sequence of the

Labor Market

Wage Transactions

Parties

Subjective Prices (Comprising the Demand and Supply)

Determinants

General

Specific

Wage theory seeks to set forth the specific and general determinants of the subjective prices of parties to wage transactions in a given labor market.

EXPLANATION OF THE DEMAND FOR LABOR

The explanation of wage rates, like the explanation of every other price problem, necessitates an adequate analysis of demand and supply. It is a commonplace observation, familiar to persons unversed in economics, that if the demand for labor in a given market at a given price is in excess of the supply, wages will rise; and if under the same conditions the supply exceeds the demand, wages will fall. Cobden long ago quaintly expressed the relationship when he said: "Whenever two workmen run after one master, wages fall; whenever two masters run after one workman, wages rise." True as this is, it does not help materially in explaining prevailing wage rates. Wages are of course a resultant of the interaction of the demand for and the supply of labor in a given market. The unanswered question, however, is, What specifically determines the demand and the supply? What makes the demand and the supply what they are at any particular time? The answer to this question must take the form of a qualitative analysis of both the demand for and the supply of labor.

By the demand for labor is meant the number of workers whose services are wanted in a given market at a specified price. Some of this demand for labor comes from consumers who hire workers for personal services in the direct satisfaction of wants. The labor of many professional men is largely of this class. But the great bulk of the demand for labor comes from entrepreneurs who hire workers on account of their productivity in helping create goods that can subsequently be sold. Labor is wanted, as equipment and raw materials are wanted, because under the guidance of entrepreneurs it can be used in producing goods of value. It is the values produced by labor that prompt the demand and ultimately provide the funds out of which wages can be paid. Employers must of course have purchasing power in the form of adequate working capital out

of which to advance wages and so make their demand for labor effective. How much of the purchasing power at his disposal can an employer afford to pay for the services of a particular worker? What the consumer-employer can afford to pay, or at least is willing to pay, is determined by the marginal utility of the service to him. The labor that he employs creates no product to be subsequently sold and thus to reimburse the employer for the wages paid. In employing labor it is wholly a matter of the importance to himself of having or dispensing with the services in question. The same principles apply in buying such human services as obtain in acquiring any other consumption goods. What the producer-employer can afford to pay for the services of labor is determined by his estimate of the productivity of labor.

Productivity as a specific determinant of the demand for labor. Every entrepreneur is confronted with the practical problem of so conducting his business that there will be sufficient income to cover the necessary outgo represented by the expenses of production. As long as the employment of additional labor and capital yields income at least large enough to cover the additional costs of production it is good business judgment to employ them. What the entrepreneur is interested in is maximum net profits. Consequently, he constantly studies the prices he can obtain through the marketing of his goods in relation to the cost of producing them. Rising prices coupled with lagging costs, or unchanged prices linked with reduced costs, mean larger profits to him.

What can the employer afford to pay labor or any other productive agent? It is the proportionate contribution of labor or any other factor in production to the ultimate realized value of the product which fixes the maximum that the employer can afford to pay in wages or other returns. If the competition for labor is active, the chances are that he will be compelled to pay an amount that is close to what he can afford to pay. But how can an employer measure the productivity specifically attributable to labor and apart from the productivity of the other factors in production? How does he know what he can afford to pay? As a matter of practice he cannot know precisely. What he does know is his total business income and costs, and whether he is operating at a profit or a loss. If his

costs are too high in comparison with those of his competitors he may not be able to sell his products, and then there will be no value productivity out of which to pay wages or any other return. His product, moreover, is not created by labor alone but by labor working with the aid of other agents. Just what part of the eventual joint product is attributable to each factor in production is a matter of imputation, difficult at best. What is more, the productivity specifically attributable to labor varies with the proportionality of the other factors employed—with the amounts and efficiency of the capital and natural resources used. Whether in the distribution of the product the entrepreneur-employer pays labor all that he can afford, or more than he can afford, in relation to the claims of other factors cannot be accurately computed. All that the entrepreneur-employer can do is to *estimate* the productivity of labor and other factors. In doing so certain principles of value productivity, diminishing productivity, and marginal productivity are germane and of decisive importance.

Value productivity of labor. It is not the mere physical productivity but rather the value productivity of labor that creates the funds out of which wages are ultimately paid. Whatever the nature and volume of the physical products may be, it is the price they bring when sold in the market that determines the possible compensation to labor. Under given circumstances of time and place a worker's productivity in the physical sense may be represented by a tool which it has taken him one day to make. The tool may sell for \$5. Under other circumstances it may sell for \$10. The physical product is the same in the two cases, but the value product is different. Wages are gauged by value productivity.

Commonly the product created by labor does not have its full value until some time in the future when it gets into the hands of consumers. But workers cannot wait until then for their compensation because their weekly wages are usually their only, or at least principal, source of income. They must have immediate payment in order to live. In our modern organization of production it is the function of the entrepreneur-employer to advance the wages and to seek reimbursement with interest when he succeeds in selling the output of his enterprise. But if the employer must advance the

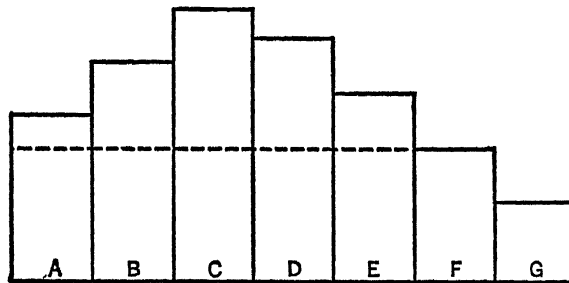
wages and wait for his own returns, the most that he can afford to pay now is the present value of the anticipated future value product. He discounts this estimated future value product to the present and pays the worker something less than the ultimate value of this product. If he is able to gauge the business situation with some degree of certainty, the present value of labor's future value product represents his maximum subjective price.

The law of diminishing productivity as applied to labor. In formulating estimates of the future value productivity of labor, the employer (and for that matter the worker too) is affected by the law of diminishing productivity and the margin of employment, though he may not have heard of either. Labor, like all agents in production, is subject to the law of diminishing productivity. If the number of workers in a given establishment is increased, all other factors remaining the same, within limits the total product may be somewhat increased; but sooner or later the point of diminishing productivity is reached—the point beyond which the product per worker decreases as the number of workers is increased. With a constant amount of capital and land an entrepreneur cannot expect to hire an indefinite number of workers and to escape the experience of their decreasing effectiveness. To maintain their output he must properly vary the amounts of capital and land used, for the output of every business is a joint product of all the agents of production. The specific productivity of any one is distinctly limited by the productive efficiency of the rest.

Although the law of diminishing productivity limits the number of workers that can advantageously be employed with a given combination of other factors, the employer does not stop hiring workers as soon as he knows that the point of diminishing productivity has been reached. To stop as soon as the employment of an additional worker increases the aggregate product by an amount less than the last preceding worker added would frequently mean to stop short of making maximum profits. Eventually, however, a point is reached where an additional worker will add a product no greater than the cost of his labor, *as determined by other considerations*. This is the margin of employment beyond which it is unprofitable to proceed. The law of diminishing productivity as applied to labor

recognizes that wages cannot be maintained at a given level if the number of workers is greatly increased while the capital and land with which they work remain unchanged. A worker's best chance for high returns lies in working under conditions that offer relatively large supplies of capital and land per worker. If the law of diminishing productivity correctly describes an inevitable tendency in our economic life, it is also true that the associated concept of marginal productivity is logically inescapable.

The relation between diminishing productivity and marginal productivity may be illustrated by the following diagram in which the successive rectangular areas, A to G, represent the value pro-



THE PRODUCTIVITY OF LABOR

ductivity imputed to successive workers employed on a given job with a constant supply of capital and land. It is apparent that productivity per worker increases rather than diminishes until after the employment of the third worker but falls sharply beginning with the employment of the fourth. The early increase in proportionate productivity may be due to the advantages of co-operation or to better balancing of all the factors of production involved. It soon disappears. Area F in the diagram may be assumed to be the marginal productivity of labor, a value product just large enough to provide acceptable compensation for labor. Under these circumstances, worker G, whose productivity is even less, would not find employment in this enterprise. The significance of marginal productivity in the explanation of some wage rates is considered next.

The marginal productivity of labor in relation to wages. The

principle of marginal productivity as an explanation of wage rates is both helpful and confusing. It is helpful when properly applied to account for wages that obtain within a group of similarly employed workers, in an enterprise that is showing distinctly diminishing productivity per worker, but confusing and misleading when too much is claimed for it. The simplest way of stating what is meant by the marginal productivity of any fairly comparable group of laborers is to say that it is the value product attributable to the employment of one worker more or one worker less in a given enterprise. If the workers of a given group are all assumed to be of equal efficiency, the difference in the value of the product occasioned by a change of one worker in the number employed represents the marginal product of labor. Still another way of expressing the same idea is to say that the product gained or lost through the efforts of one worker of a homogeneous group is the marginal product of the labor of such group. Usually the marginal laborer is the worker who finds employment under conditions least favorable to his productiveness. The reason for these unfavorable conditions lies not in the worker, for he is assumed to be as efficient as any of the others, but in the fact that there is a limit to the number of men that can advantageously be employed on a given job with given amounts of capital and land. If an entrepreneur working with a given amount of labor, capital, and land finds that by dispensing with the services of one worker his value product is diminished \$10 per day, the marginal productivity of the labor concerned may be considered as \$10. The marginal productivity of labor is not the specific productivity of labor in the sense that it is exclusively attributable to labor apart from the other agents in production. Labor works with both capital and land. Both total productivity and marginal productivity are the combined productivity of all the productive factors involved. But if the employment of an additional worker or the release of a single worker results in a change of output, without any change in the capital equipment or land used, it is reasonable to impute this output change to the efforts of the single worker. The marginal product of labor represents what labor is worth to the employer. In the preceding illustration, to avoid los-

ing the services of one worker the employer can afford to pay him the present value of the ten-dollar marginal product.

Most economists make the marginal productivity of labor the core of their theory of wages. According to this marginal productivity theory of wages, wages tend under competitive conditions to equal the marginal product of labor. What any entrepreneur-employer can afford to pay a worker is the present value of this marginal product, the product that he would lose through dispensing with the services of one worker. If he fails to pay it, some competing employer will. On the other hand he need not pay more, because all that he would lose through dispensing with the services of one worker is this same marginal product. If a given worker refuses to accept it, competing workers can be obtained who will take it. If the workers of a given group are all assumed to be equally efficient in production, the marginal productivity of the group determines the wages that can be paid to any one of the workers within the group. At best the theory explains the wages that can and need be paid under competition to any laborer within a particular group: wages tend to equal the marginal product of labor.⁴

⁴ Mr. J. R. Hicks offers a succinct statement of the argument of the marginal productivity theory of wages in the following passage:

"The conventional proof of the marginal productivity proposition is simple enough. It follows from the most fundamental form of the law of diminishing returns that an increased quantity of labour applied to a fixed quantity of other resources will yield a diminished marginal product. Thus if the employer were to take on a number of labourers so large that their marginal product was not worth the wage which has to be paid, he would soon find that the number was excessive. By reducing the number he employed, he would reduce his total production, and therefore (under competitive conditions) his gross receipts. But at the same time he would reduce his expenditure; and since the wage was higher than the marginal product, he would reduce his expenditure more than his receipts, and so increase his profits. Similarly, he would not reduce his employment of labour to such a point as would make the wage less than the marginal product; for by so doing he would be reducing his receipts more than his expenditure, and so again diminishing his profits. The number of labourers which an employer will prefer to take on is that number which makes his profits a maximum, and that number is given by the equality of wages to the marginal product of the labour employed.

"It is thus clear that the wage at which equilibrium is possible will vary in the opposite direction to changes in the total number of labourers available. If the number of labourers available on the market had been larger, the wage must have been lower; since the additional product secured by the employment of one of these extra labourers would be worth less than the previously given

The principle of marginal productivity guides the entrepreneur in deciding upon the possible employment of additional men. It measures the strength of his demand for workers. It is useful in explaining the wages that he can afford to pay to any one of a group of workers that find employment. But to explain wages wholly in terms of marginal productivity is to offer an unrealistic explanation. The chief reason is that the marginal productivity theory of wages assumes a perfection of competition which rarely exists. It assumes that competition among employers eager for workers will force a given employer to pay what he can afford to pay, and that competition among workers eager for the job will prompt them to accept the offered wages. It relies upon competition to induce workers to accept what the employer offers. But there are too many frictions of the market to enable competition to work with such nicety in the determination of wages. If both employer and employee were able to estimate with a fair degree of accuracy the value productivity out of which wages must be paid, if labor were perfectly mobile to take advantage of the best market for its services, and if competition worked smoothly and quickly, the principle of marginal productivity would have more direct and immediate bearing in the explanation of market wages. But to the extent that the frictions of the market can be overcome and competition prevails there is a tendency for the wages of a homogeneous group of workers to equal the discounted marginal product of their labor.

When the relation between marginal productivity and wages is expressed, as it frequently is, by saying that an employer will hire additional workers until the marginal product of their labor about

wage, and consequently it would not pay to employ these men unless the wage-level was reduced. If the number had been less, employers would have had an incentive to demand more labourers at the given wage than would actually have been available, and their competition would therefore force up the level of wages. The only wage which is consistent with equilibrium is one which equals the value of the marginal product of the available labour.

"This 'Law of Marginal Productivity' is regarded by most modern economists as the most fundamental principle of the theory of wages. Nothing will be said here to contradict that view. Nevertheless, care has been taken in framing the above statement of the law to bring into clear relief the extremely abstract assumptions on which alone it is rigorously true to say that wages equal the marginal product of labour. A long road has to be travelled before this abstract proposition can be used in the explanation of real events."

—*The Theory of Wages* (London: Macmillan and Co., Ltd., 1932), pp. 8–10.

equals their wages, a "going" rate of wages is assumed. But a real wage theory must explain and not assume "going" rates of wages. If the marginal productivity theory of wages is stated in such a way as to assume market wages, it is of course a species of circular reasoning as a general wage theory. What the marginal productivity principle properly does is to express the fact that the employer's demand for labor is measured by the value product dependent upon the use of one worker in a group of like workers, or the value product, lost through dispensing with the services of one worker in such group. Such productivity determines the wages he can afford to pay.

Preponderantly marginal productivity⁵ is an explanation of the effective demand for labor. It offers no comprehensive explanation of the supply. But it is reasonable to ask, What compels the workers of a group to accept as wages the marginal product of their group? Is it merely competition for the job? Why should any worker become or remain a member of a given group, if the marginal product which sets the upper limit of his wages is unsatisfactory to him? Such considerations suggest that wages are not only a matter of what the employer can afford to pay but also of what the worker is willing to accept. The margin of employment is fixed by all the forces that affect both the demand for and the supply of labor. It is obvious that, if wages are to be relatively high, marginal productivity must be high. The marginal productivity of labor depends not only upon its own efficiency but also upon the efficiency of management in the proportioning of the other factors of production with which labor works. If labor is scarce in relation to the other agents in production its marginal productivity will be high; if it is plentiful or superabundant its marginal productivity will be low. In general it may be said that the factor of production which is relatively scarce receives the largest returns. Since the marginal productivity of labor is conditioned upon the number of workers offering their services and finding employment, the explanation of

⁵ It is important to note that in the discussion that follows, the term "marginal productivity" is used to refer to the productivity dependent upon a single unit of the labor supply rather than to the marginal productivity theory of wages. Recognition of the *fact* of marginal productivity does not necessarily mean acceptance of the *theory* of marginal productivity, since marginal productivity is usually only one among several determinants of the wages paid in an actual labor market.

wages requires a qualitative analysis of the supply of labor as well as of the demand for it.

EXPLANATION OF THE SUPPLY OF LABOR

Like the demand for labor, the supply of labor always means something specific. Although size of population is the ultimate limiting factor of the labor supply, the two are not identical. Labor supplies are always relative to given markets. By the "supply of labor" is meant the number of workers who are able and willing to offer their services in a given market at a specified price. The amount of labor offered varies with the price, but not as sharply as is the case with other supplies. There is at any given moment a fairly constant population which cannot be quickly changed in response to rising wage rates of the market.

The wage worker is a seller of his services. In marketing his services during fixed hours and a stipulated period of time the worker practically places himself under the control of his employer. His services cannot be dissociated from his person. He gives himself with his service. This fact has led to many aggressive demands for adequately compensating wages.

Another characteristic of the labor supply which directly affects the terms at which human services are offered in the market is the comparative immobility of labor. Labor is not as free to seek the best market for its services as the theory of perfect competition assumes. While material commodities may be shipped to any available market, workers cannot so easily pull up stakes wherever they live in order to find better jobs elsewhere. Local ties they have established, including the homes they occupy and the interests of the family in the community, often inhibit such migration and restrict the choice of workers to local opportunities.

In setting a price upon their own services workers are confronted by the fact that their withholding power is decidedly limited. For one thing the worker has a perishable service to sell; labor that is not marketed today is lost forever. For another, the worker usually has little power to withhold his services from the market at whatever price they will bring because he has no reserves upon which

to fall back while he bargains for acceptable wages. If he has reserves, either through his own individual efforts or through the coöperative action of the union to which he may belong, his bargaining power is greatly strengthened.

Productivity as a specific determinant of the supply of labor. Although the employer has a decided advantage in estimating the value productivity of the worker as a basis of the wages he can offer, productivity is by no means a negligible factor in accounting for the subjective price of the prospective employee. Long experience aided by accounting data and statistical analysis of his business operations may enable an employer to calculate with some degree of certainty what an employee is worth to him. Usually neither such technique nor such wealth of experience is available to guide the employee in estimating his own productivity. He may merely resort to rough rule-of-thumb methods. If organized with others and represented by those more skilled in such matters, he may substitute more accurate estimates for rough guesses and approximations. In any event labor realizes as well as the employer that wages cannot be unrelated to the productivity of the workers. If the worker has reason to believe that his productivity is increasing, that he is growing more valuable to the business, he is apt to ask for higher wages. One thing that makes him more valuable is experience in the work he is doing.

The standard of living as a specific determinant of the supply of labor. The determinant of wages, however, which appeals most strongly to labor as both desirable and just is the standard and cost of living, particularly if the standard of living used is a high standard. But is there any real connection between the worker's standard of living (those habits of consumption which so largely establish his social status) and the wages he can hope to obtain? Is not the standard of living more the result than the cause of the wages that are paid? In analyzing the influence of the standard of living upon wages it is necessary to distinguish between its short-time and long-time effects. In the short run a high standard of living may serve as a spur to labor in driving the best possible wage bargain. The worker's standard is of great importance in determining what he will accept, provided he has any real option in

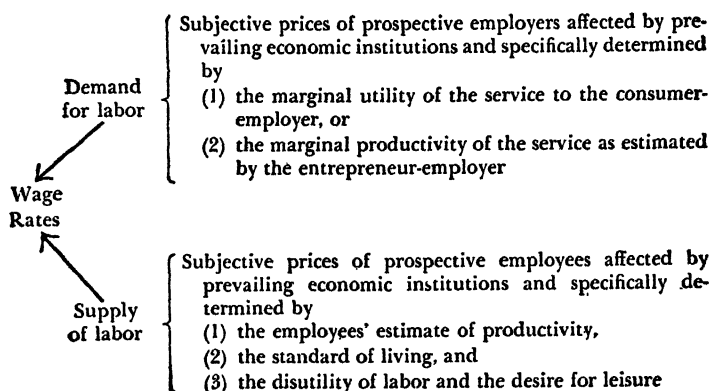
the matter and sufficient withholding power to enable him to bargain with some effectiveness. To protect their customary standards of living workers will usually strenuously oppose threatened reductions in their wages. It is also true that a worker's productive efficiency, which sets a limit to the wages he can hope to receive, is itself affected by the standard of living he is able to maintain. Particularly is this true with respect to the elementary necessities of wholesome food, adequate clothing, and decent housing. The depression of the thirties furnished many striking illustrations of low productive efficiency on work-relief and other projects because the standard of living of the workers was so low. The popular doctrine of the "economy of high wages" held in some American industrial circles is partly based upon the idea that high wages justify themselves because they make possible a higher standard of living, which in turn makes for greater productive efficiency.

In the long run the chief relation between the standard of living and wages lies in the effect of the standard upon both the age at marriage and the birth-rate. The standard of living is a positive factor in controlling numbers. There is no doubt that much restriction of population is today deliberately intentional, and that the desire to attain or maintain a high standard of living is the important motivating influence in the matter. Whatever checks the growth in population ultimately affects the labor supply. The growing scarcity of labor in relation to other factors in production tends to raise the marginal productivity of labor and so to increase its wages. While restriction of numbers does not *per se* bring about higher wages, it is the scarcity of labor in relation to the other factors in production which determines the possibility of higher wages.

Disutility of labor and the desire for leisure as a specific determinant of the supply of labor. Still another specific determinant of the supply of labor is the disutility of labor and the desire for leisure. Work is normally enjoyable unless man's psychophysical organism is overtaxed. But there is increasing disutility of labor as work is continued without adequate opportunity for recuperation. Leisure is needed for mental and physical relaxation. The disutility of long-continued labor and the desire for leisure are the basis of

the demand for higher wage rates when "overtime" work and work on Sundays and holidays are expected. In labor-union industries wage rates equal to one and one-half the regular rates have been common for overtime work, and double the regular time rates for work done on Sundays and holidays.

The foregoing qualitative analysis of the demand for labor and the supply of labor in any selected labor market may in its essentials conveniently be summarized in the following diagram.



THE LABOR MARKET

THE WAGE BARGAIN

Limits of the wage bargain. The interaction of the demand for labor and the supply of labor in the determination of wages, whatever may be the precise influence of the institutional and specific determinants just considered, ultimately finds expression in the wage contract. The wages actually paid are fixed by agreement between the employer and the employee. Whenever the subjective price of the prospective employer is equal to or greater than the subjective price of the prospective employee, a wage agreement is possible and a wage rate can be established through bargaining. The most that the employer can afford to pay, usually set by his estimate of the productivity of the worker, and the least the employee is willing to accept, usually set by his minimum standard of living,

fix the natural limits of such a wage bargain. The precise rate of any particular wage contract is a matter of the relative bargaining ability of the employer and the employee and of the character of the labor market in which they operate. Since the employer is usually a better judge of the productivity of labor than is the worker, and because the hiring of a particular worker is usually optional with the employer, it is not surprising that the wages actually paid are often closer to the worker's minimum than to the employer's maximum. If the labor market concerned is highly competitive, however, the competition of employers for men will force a given employer to pay close to what he can afford to pay, and the competition of workers will keep wages within this limit. The more frictionless the market and the more perfect the knowledge of the market situation, the more closely will actual wages approximate the marginal productivity of labor.

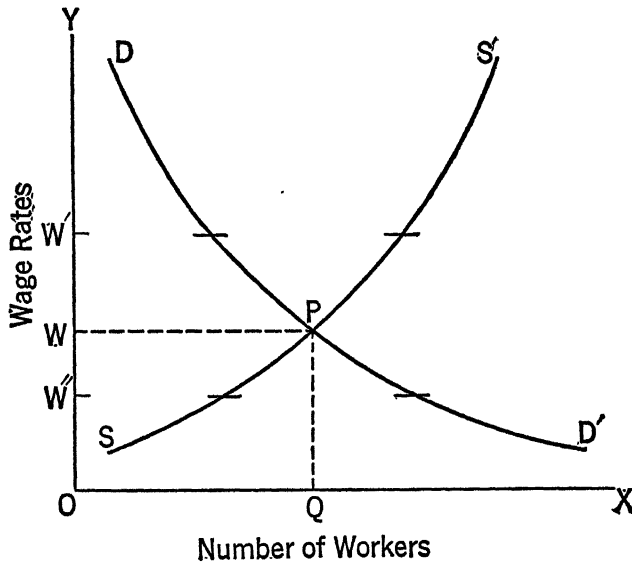
But under the actual conditions of the market competition is far from perfect and there is opportunity for the exercise of bargaining power. There may be exceptional and temporary economic circumstances which prompt an employer to pay higher wages than the productivity of the workers warrants. Every depression creates such situations. An employer naturally seeks to keep his experienced workers as long as possible in the hope that conditions will improve, even though for the time being their productivity does not warrant the wages he is paying them.

It is also true that as a result of the weaker bargaining power of the worker compared with that of the employer wages often fall below the productivity of labor. Labor is not thoroughly enough informed and powerfully enough organized always to secure its full marginal worth to the employer, and it is only human nature for the employer to secure his labor for less if he can. Due to unequal bargaining power between labor and employers, it is much more common for labor to get less than it is to get more than the marginal product.

In general it may be said that the more unique and exceptional a worker's job, the greater is his opportunity to bargain successfully concerning his compensation.

Wages, a price effecting equilibrium between demand and

supply. In a competitive labor market the rate of wages will tend to be established at a price which will effect an equilibrium between the demand for and the supply of labor in such market. There will be a distinct rate for each kind of labor. Only an equilibrium price offers stability. If the wage rate is not such as to equate the demand and the supply of the market, it will be upset either by an excess in the demand or the supply at such price. As long as an entrepreneur-employer can secure workers for less than they are



DEMAND AND SUPPLY IN A GIVEN LABOR MARKET

worth to him, as measured by their productivity, he will have an inducement to demand more labor. The competition of other employers similarly situated will tend to raise wages. If wages are above what employers can regularly afford to pay, unemployment will result and the excess labor supply will drive wages down.

It is possible to represent by graphs the interaction of demand and supply in the establishment of wages in a free and competitive labor market. In the accompanying diagram wage rates are indicated on the OY axis and the number of workers on the OX axis. The curve DD' is the locus of the subjective prices of prospective employers—the rates at which they stand ready to employ the indicated num-

ber of workers. Similarly, the curve SS' is the locus of the subjective prices of prospective employees—the rates at which the indicated number of workers stand ready to deliver their services. Each curve shows the relation between wage rates and the amount of labor wanted or offered at such rates. If the curves correctly represent the facts of a given labor market, any point on the demand curve may be read by dropping perpendicular lines to both the OY and OX axes. The point of intersection with the OY axis indicates the wage rate, and the point of intersection with the OX axis the number of workers wanted at such rate. Together they constitute the ordinate and abscissa of the selected point on the demand curve. In the diagram, point P , which is common to both the demand and supply curves because it is their point of intersection, represents a wage rate measured by OW and a demand at this rate for OQ workers. The supply curve may be similarly read. It is obvious that in the market represented by this diagram QP (which equals OW) is the only wage rate at which the demand for labor (OQ) exactly equals the supply of workers (OQ) willing to render their services at such rate. It is the wage rate which effects an equilibrium between demand and supply. If a higher wage, such as OW' , is assumed, it can be seen that in this particular market the demand would be less and the supply greater, thus creating a situation of unstable equilibrium. The competition of workers for the limited jobs would tend to lower the assumed rate. If a lower wage rate than OW is thought possible, such as OW'' , it is equally apparent that this is another but the reverse situation of instability; the demand for workers exceeds the number willing to offer their services at such lower rate. The competition of employers for the limited number of workers would tend to raise the assumed rate. Only when the wage rate is such as to equate the demand for labor and the supply of labor in a highly competitive market is a state of market equilibrium achieved.

The foregoing analysis of wages does not offer any simple unitary principle as the explanation of wages. However attractive such a theory might be, the facts do not warrant it. It is a pluralistic, not a unitary, explanation. It recognizes the importance in wage theory of the productivity, standard of life, and bargaining principles, and

gives due weight to the modifying influence of the economic institutions of time and place. It concedes that commonly neither the mobility of labor nor the effectiveness of competition among employers and workers is such as to establish that uniformity of wages in a given market which a strict application of the marginal productivity principle implies. What is an undoubted tendency under given conditions may be obscured by the frictions of the actual market. This does not invalidate the principle, however. Since wages, like every other market price, arise out of the meeting of human minds, they are not fixed by the operation of immutable forces. The demand and supply of the labor market through which wages are established are after all merely composites of subjective prices—the terms on which human beings are willing to hire the services of others or to render their own. There is, in short, plenty of latitude in wage transactions for the exercise of initiative on the part of both employers and workers as well as room for social control.

LONG-TIME FACTORS AFFECTING WAGES

The more important determinants, both general and specific, of the terms on which employers and workers are willing to enter into current wage contracts have been indicated in the preceding analysis. There are important long-term factors which affect particularly the marginal productivity of labor on which under competitive conditions wages so largely depend.

Proportioning the factors in production. Most important among these is the proper proportioning of the factors in production. Labor does not work alone. Its productiveness directly depends upon the amounts and efficiencies of the capital and land with which it works, and upon the skill of management in coördinating all the factors in production. When labor is relatively scarce and the other productive factors are abundant, wages are apt to be high. This has notably been true in the United States through many years of our history. But when the other factors are scarce relative to the labor supply, wages are bound to be low. Most of the Orient furnishes a good illustration. When inexpert management combines labor with something less than the most effective combination of capital and

land, wages are certain to suffer. Whatever social changes cause the labor supply to increase faster than the supply of other productive agents will bring about a reduction in wage rates. Conversely, whatever causes the accumulation of capital or the supply of available natural resources to increase more rapidly than the labor supply will lead to a rise in wage rates.

The effects of changes in the technology of production upon the status of the worker have already been partly discussed.⁶ A distinction was drawn between the short-time and the long-time effects of the introduction of improved machinery and methods of production. The former may be highly prejudicial to the interests of the affected workers, while the latter may prove beneficial. New inventions may radically alter the most advantageous proportioning of the factors in production; this may result both in the unemployment of some previously employed and in the greater productivity of those that succeed in retaining their jobs. Much depends upon the elasticity in the demand for the products of labor and so for labor itself. If the new techniques in production lower unit costs and prices, they may stimulate a greater volume of demand and so help to maintain both wages in the aggregate and wage rates. But if the demand is not elastic, opposite results will follow. Much also depends as far as wages are concerned upon the ease or difficulty of substituting more of capital or natural resources for a given amount of labor. Where this can easily be accomplished some workers may be discharged, and their competition for available jobs may lower wage scales.

Division of labor supply into non-competing groups. The productivity of labor is affected by the fact that the labor supply of a modern people is stratified into numerous non-competing groups—the unskilled, semi-skilled, and skilled manual workers, clerical workers, business and industrial executives, members of the professions. This somewhat reduces the intensity of competition within each group. If everyone were able to do the work of everyone else, if there were perfect mobility of labor from occupation to occupation, the marginal productivity of labor in most occupations would be much less than it is. But of course there is no such mobility and

⁶ Cf. Chapter VIII, "Labor-Union Policies", pp. 168-170.

free substitution of one person for another. Differences in natural ability, training, and force of circumstances limit the competition of most workers to their own occupational groups. Skilled workers and professional men do not normally compete with unskilled laborers for their jobs, although there were numerous instances of such competition during the depression of the thirties. Gifted artists stand by themselves. Many men become so eminent in their professions that they have no real competition. There are striking differences in the hereditary endowments of men which affect the type of work they can do. There are enormous differences in environment, particularly of home, school, and other training agencies which largely determine the opportunities men will have. Such differences in endowed capacity, training, and environmental opportunity inevitably lead to great differences in wages and other forms of compensation. To the extent that these differences persist from generation to generation, the labor supply will continue to consist of non-competing groups. In a democratic society capable individuals may rise from group to group, but the groups themselves persist. Marginal productivity, it is true, has much to do with the determination of wages, but marginal productivity varies from group to group, and some of the groups are non-competing. The highest wages are paid to those in small non-competing groups, whose services are in great demand. The fabulous sums sometimes paid to great artists, and even to champion prize-fighters, illustrate the principle. "There is always room at the top" is the familiar way of saying that there is little competition when one is at or near the top of one's profession, and the prospect of large rewards is correspondingly great.

The nature of the occupation. The character of the occupation has much to do with the number of workers seeking to enter it and their possible productivity. Relative scarcity of workers is apt to mean large marginal productivity, which makes possible the payment of high wages. Some wage differentials are largely explicable in terms of the occupation itself.⁷ The work of some occupations is

⁷ Cf. Adam Smith, *Wealth of Nations*, Book I, Chapter X, for a suggestive treatment of this subject in 1776. An excellent modern discussion is presented in F. W. Taussig, *Principles of Economics*, 3d ed. (New York: The Macmillan Company, 1921), pp. 131-141.

more attractive than that of others. The greater psychic income of the more agreeable occupations is an offset to lower wages actually received. University professors sometimes receive lower salaries than are commanded by men of equal ability and training in other professions. The profession is alleged to enjoy such prestige, flexibility of hours, shortness of the working year, opportunity for scholarly achievement, and great joy in "teaching the young idea how to shoot" that men are willing to accept lower salaries to occupy professorial posts. For the same reason many men are willing, at least temporarily, to give up lucrative private positions for the opportunity of filling the higher governmental posts. The glamour of office, the distinction it confers, the spot-light of publicity, and the thrill of power conspire to make governmental positions highly attractive to some men. Again there are men who prefer the lower pay of certain clerical jobs to the higher pay of skilled labor which they might perform, because the former type of work is more agreeable to them. Similarly, girls working in factories and retail stores work for less than the total income they might receive in many parts of the United States as domestic servants. If there were perfect mobility of labor, the more agreeable occupations would be crowded and the wages earned would be lower than in the less attractive occupations. Sometimes the more disagreeable occupations do yield higher rates of pay. Adam Smith observed "The most detestable of all employments, that of public executioner, is, in proportion to the quantity of work done, better paid than any common trade whatever." Usually, however, the coarse, dirty, hard, heavy work of the world, socially necessary as it is, does not command any premium over the easier and more agreeable work. The reverse is true: the more agreeable work is better paid. The reason is that many more persons are capable of performing the less agreeable common labor, and are not free, through lack either of ability or of means, to choose the more agreeable occupations.

Some occupations cannot offer great regularity of employment. Coal-mining unfortunately still belongs in this class. Members of certain crafts in the building industry, such as bricklayers, stonemasons, and plasterers, do not find as steady employment even when the construction industry is active as do their fellow-craftsmen whose

work is less seasonal. Perhaps one reason why football coaches commonly receive higher salaries than their academic colleagues in less colorful subjects lies in the fact that the employment of the former is frequently short-lived. Other occupations are attended by great danger. Not many persons care to risk their lives either as steeple-jacks or deep-sea divers. Still other occupations necessitate protracted preparation and extensive outlays to enable workers to qualify for them, which is true of most professions. In all cases the effect is to restrict the numbers of persons able and willing to offer their services, which leads to greater productivity per worker for those that find employment in such occupations.

CHAPTER XX

INTEREST

NATURE OF INTEREST

Perhaps the most persistent and pervasive price problem in the entire field of economics is the problem of what determines the rate of interest. In practical economic matters we are constantly assuming the operation of interest rates. When we use average net earnings, for example, as a base for determining the fair capital value of a business enterprise, we must assume some *rate* of return. When net earnings are capitalized they must be capitalized at some rate, and the determination of this rate involves the interest problem. If the average annual net earnings of a business are \$80,000, and 8 per cent is considered a fair rate of return in such business enterprises, we say that the fair capital value of the business is $\$80,000 \div .08$ or \$1,000,000. But why is 8 per cent assumed to be a fair rate of return? Why is not 6 per cent fair enough, or 10 per cent just as equitable? The answer to such questions is based on the existence of market interest rates. In the discussion of bank loans, discounts and rediscounts, the rates of international exchange, the general level of railway rates and specific rates based on cost of service, insurance premiums, cost of production as an element in price, the discounting of the value productivity of labor—all topics discussed in previous chapters of this book—interest rates were taken for granted. No question was raised as to where they came from or what set them at one level rather than at another. In subjects still to be considered such as the capitalization of the economic rent of land, general price changes, and the cyclical movement of business, interest rates will again figure. Since the rate of interest is not only an important element in the cost of doing business, but is also basic to the rates of return assumed in many business valuations, it is evident that the theory of interest is important in explaining many valuations of the

market. The present chapter is largely concerned with an analysis of the interacting forces which result in the establishment of rates of interest.

Interest is the price paid or imputed for the use of capital. Whether the owner of capital lends it to someone else or employs it in his own business is immaterial as far as the fact of interest is concerned. In either event capital is worthy of its hire. Some owners of capital are either unable or unwilling to assume the risks of entrepreneurs; they prefer to lend their capital to others and to accept loan interest payments in return. Others prefer to use capital in their own business enterprises, properly attributing part of the business earnings to the invested capital and allowing interest for its use. Conventionally, the value of capital is expressed in money, and both *loan interest* and *interest on invested capital* (the latter usually called *imputed interest*) are computed as a percentage (6 per cent, for example) of the capital value measured in money. Since it is in the market for loanable funds that the forces determining interest most clearly reveal themselves, it is more instructive to begin with a study of loan or contractual interest than to try at once to explain the yield on invested capital that has not been borrowed at all, that is, to explain imputed interest.

It will further expedite our understanding of the interest problem and interest rates if a distinction is made between *gross interest* and *net interest*. The ordinary interest paid on a loan is gross interest. It includes not only a payment for the cost of saving, but also a payment to the lender for the risk of losing his investment in part or whole, and a further payment for necessary services in making and watching his investment loans. Net interest is interest for socially necessary saving—for savings that must be made if the market's demand for loanable funds is to be satisfied. It is sometimes called "pure interest".

It is a common mistake in discussing loan interest to speak about "*the* interest rate", as if there were but one. Whatever may be true about net interest, there are many different rates of gross interest. Loan interest rates vary enormously from market to market, and with the character of the loans. At the opening of 1936 some interest rates in the United States were extraordinarily low, close to the low-

est in American history. Bankers' acceptances were quoted in New York at $\frac{3}{16}$ to $\frac{1}{8}$ per cent; commercial paper, at $\frac{3}{4}$ to 1 per cent; call money, at $\frac{3}{4}$ per cent; and time money, maturing in ninety days, at 1 per cent. Ordinary customers' loans, on the other hand, in many interior cities were bearing interest rates of 4, 5, or 6 per cent per annum, and on the so-called "small loans" of personal or household finance companies rates as high as $3\frac{1}{2}$ per cent per month or 42 per cent per year were quoted.

FORMER DISREPUTE OF INTEREST-TAKING

The taking of interest was long in disrepute. This is not surprising, for the recognition of capital as a distinct factor in production and its use on the colossal scale that we know today are comparatively recent developments. What is more, the extensive use of borrowed capital in the conduct of business operations is distinctly modern. When borrowing was largely for the occasional exigencies of life or the necessities of personal expenditure, the asking and taking of interest were usually condemned. Aristotle had said, "Money does not breed", and also, "Money is intended to be used in exchange, but not to increase at interest." Both the Old and the New Testament condemn the exaction of usury, as interest was formerly called. In *Deuteronomy* 23:30 we read: "Unto a stranger thou mayest lend upon usury; but unto thy brother thou shalt not lend upon usury." "Lend, hoping for nothing again", was the admonition of Jesus as recorded in *Luke* 6:35. The authority and teaching of the Church were against the taking of usury. Shakespeare's Antonio in *The Merchant of Venice* reflected the prevailing view of the time. Antonio, seeking a loan of 3,000 ducats for his friend Bassanio, about to depart on the great adventure of winning Portia's hand, goes to Shylock, who in an aside remark says to the suggestion of a friendly loan:

How like a fawning publican he looks!
I hate him for he is a Christian;
But more for that in low simplicity
He lends out money gratis, and brings down
The rate of usance here with us in Venice.

Antonio in arguing for the loan says to Shylock:

If thou wilt lend this money, lend it not
As to thy friends: (for when did friendship take
A breed of barren metal of his friend?)
But lend it rather to thine enemy;
Who, if he break, thou mayst with better face
Exact the penalty.

Gradually the views of men concerning the nature of interest and the propriety of taking it changed. As a concession to traditional views, however, the taking of interest was at first cleverly camouflaged. It was sometimes regarded as a fine for failure to repay the loan when it matured; but there was frequently a *sub rosa* agreement that there should be delay in the repayment of the loan in order that interest as a fine might properly be imposed and collected. When money could be used productively, interest came to be regarded as compensation for the sacrifice of possible opportunities by the lender in letting others employ his money instead of using it himself. Ultimately, interest was justified whenever the recipient of a loan employed it in a profit-making venture. For when borrowed capital funds are no longer primarily used for consumption purposes but rather in acquisitive enterprises, why should not the owner of the funds receive some reward? As the demand for loanable funds greatly increased with the steady growth in the capitalistic character of modern industry, the old view of interest as taking advantage of a man's necessities gave way to the modern conception of the necessity of interest as compensation for waiting or saving. Neither the payment nor the taking of interest is any longer in disrepute. Shylock, who took interest when it was counter to the prevailing custom of his age, was merely hundreds of years ahead of his time.

FUNCTIONING OF THE LOANABLE FUNDS MARKET IN THE DETERMINATION OF INTEREST RATES

Loan interest rates are prices set in the markets for loanable funds, just as commodity prices and wages are set in their respective markets. Wherever borrowers and lenders congregate a loanable funds market may operate. Usually such markets function in the offices of

banks, investment houses, insurance companies, and kindred lending institutions. Borrowers usually approach the lenders for the use of funds, though in times and at places of redundant funds lenders may take the initiative in finding desirable borrowers. Loanable funds markets are of two great types: money markets and capital markets. The distinction between them is mainly the distinction between commercial banking and investment banking; between the short-term and long-term placing of funds; between investments in readily liquidated loans and in more permanent commitments. In these markets a great variety of loans is daily negotiated at widely different loan interest rates depending upon the character of the loan and the degree of risk involved. The structural set-up of loanable funds markets is similar to that of the commodity markets already considered. The *market* is a series of *transactions* between *parties* whose *subjective prices* are the terms on which they are willing to become borrowers or lenders. These subjective prices, which in the aggregate constitute the demand and supply of any market, are affected by certain *general* and *specific determinants*. Loan interest theory seeks to set forth these specific and general determinants of the subjective prices of parties to interest transactions in a given money or capital market.¹

The theoretical problem involved in a transaction of the loanable funds market may be suggested by the following situation. A merchant who has good credit standing goes to his bank for a loan of \$10,000 for six months. He gets it and agrees to pay the bank interest at the rate of 5 per cent per annum. When the maturity date arrives he promptly pays the bank the principal sum of \$10,000, which he had borrowed, plus interest amounting to \$250. In the explanation of the interest problem in this typical transaction three questions are involved. How is it possible for the merchant to pay his bank not only \$10,000 but \$250 besides? Why is it necessary for him to pay the bank this extra sum called interest? What determines the rate of interest he must pay? The interest might con-

¹ For a description and analysis of the functioning of the commodity market cf. pp. 456-461; of the labor market, cf. pp. 500-503. In the analysis of the loanable funds market in the present chapter the broad outlines of the functioning of a market are not again sketched. Only distinctive variations from the commodity and labor markets are here indicated.

ceivably be either higher or lower. The answer to the last question involves answers to the first two. Theoretical analysis of the rate of interest necessitates consideration of both the possibility of paying interest and the necessity of doing so.

As in the commodity and labor markets, so in the market for loanable funds there are both general and specific determinants of the subjective prices of the actual and prospective borrowers and lenders. Custom is notably strong in its influence upon what is known as the customers' loan rate. This accounts to a large extent for the persistence of a 6 per cent interest rate in many communities even when economic conditions warrant a change. Public authority in the United States usually sets an upper limit to the legally collectible interest rate. Any rate greater than the legal maximum, 10 per cent for example, is usury. Sometimes a local and temporary monopoly of loanable funds has permitted lenders to place their rates abnormally high, as in the call money market for example. For the most part, however, the loanable funds market is highly competitive. Money funds are the most mobile of the productive agents and consequently can readily take advantage of changes in the demand for them by seeking the best market. While these general determinants of the subjective prices of prospective borrowers and lenders are influential in helping set the price for loanable funds in the market, there are even more important specific controlling determinants. These fix what the borrower can afford or is willing to pay, and the minimum that the lender can afford to receive. Analysis of the price-offers of prospective borrowers and of the reservation prices of prospective lenders, and of how they interact in the establishment of a market interest rate, is one task of interest theory.

Again it must be pointed out that we live in a world of prices, including interest rates. We do not have to work them out each day as if they had never been established before. Prevailing interest rates, the "going" rates of any market, strongly influence the subjective prices of prospective borrowers and lenders. Any given interest rate, to be sure, is the resultant of the market demand and supply, but the "going" rate so established affects future demand and supply, and so the interest rates of tomorrow.

EXPLANATION OF THE DEMAND FOR LOANABLE FUNDS

The explanation of interest, like the explanation of wages and commodity prices, necessitates an adequate analysis of demand and supply. Loan interest is simply a special kind of price, controlled by the forces of demand and supply as are other prices. Whatever makes up the demand for funds, whether the necessities of consumers, the needs of the government, or the productive opportunities of entrepreneurs, and whatever conditions the supply of funds, whether the savings of individuals or the accommodation of banks and other institutions, have a bearing upon the interest problem and the explanation of interest as a market price. Market prices emerge at the points of adjustment between demand and supply. Interest is no exception, and consequently whatever factors are operative in the loanable funds market must be taken into consideration. Some factors are much more important than others; some principles are more inclusive than others, but none offers an exclusive explanation of all the problems involved in the determination of market interest.

Meaning of the demand for loanable funds. The demand for loanable funds is the amount that prospective borrowers are ready to take at specified prices in a given market at a given time. Of the total demand for loanable funds at all possible rates, some is translated into an actual market price through the conclusion of a loanable funds transaction, while some remains potential awaiting more favorable conditions to become actual. The demand, whether actual or potential, expresses the subjective prices of prospective borrowers. The immediate task in loan interest analysis is to set forth what determines these subjective prices of prospective borrowers.

The desire for loanable funds, however urgent, is not equivalent to effective demand. If the desire of prospective borrowers is to have any market significance, it must be supported by purchasing power in the form of good credit standing capable of making it effective. A borrower's credit turns on both his character and his capacity and, in the case of larger loans, upon the amount of his free capital assets or the security that he can offer as collateral. A potential bor-

rower at a bank may establish his credit standing by filing a statement of his assets and liabilities. If this is satisfactory to the bank, he will be given a line of credit entitling him to borrow up to the maximum credit extended him by the bank. If he prefers to pledge collateral security for any loan to which he becomes a party, this is also acceptable to any lender. The borrower's credit is of importance to the lender as assurance that the loan with interest will be promptly paid when it matures.

There are two main sources of demand for loanable funds. One is the demand of consumers who want funds in order to be able to acquire certain highly desired goods at once. The other is the demand of entrepreneurs who want funds in order to be able to use them in production. Both consumer-borrowers and entrepreneur-borrowers may have to borrow at times for the purpose of meeting other maturing loans.

Demand for private consumption loans. Consumers having intense present wants and inadequate present income but anticipating greater future income, and consumers having a hazy view of the importance of future wants, due either to their ignorance or to their natural improvidence, enter the market as prospective borrowers. Consumption loans were once the rule rather than the exception. Although such loans are now overshadowed by production loans, they are still of large importance in the aggregate market demand. The large business of the small loan companies and the survival of pawnbrokers and "loan sharks" are evidence of this. A good many mortgage loans and collateral loans are also made for consumption purposes. Instalment purchases, in which interest-bearing notes or contracts are signed for unpaid balances, are other examples. While some borrowing for consumption is by those lacking providence and foresight, much of it is due to straitened financial circumstances which prompt the borrowers not only to pledge their resources but also to strain their credit.

Perhaps this type of borrowing may be seen under the most justifiable circumstances when a loan is negotiated to provide for some family emergency, such as medical service, surgery, and hospitalization. A consumer-borrower in this situation may be said to have a high degree of preference for present funds over future

funds. Present dollars will enable him to do something for the stricken member of his family; future dollars may come too late. The marginal utility of the services which the borrowed dollars will command is very great. Accordingly he is quite willing to pay a premium for the use of these funds now. His *time-preference*, as his preference for present goods over future goods of like kind and number is called, may be represented by saying that he is perfectly willing to pay \$1,060 or more a year from now for the immediate use of \$1,000. Such consumption use of borrowed funds creates no surplus out of which interest can be paid. Consumer-borrowers must simply mortgage their anticipated future income from whatever sources derived to pay back the borrowed funds with interest. Consumption loans are not self-liquidating. The possibility of paying interest on such loans turns entirely on the adequacy of income from service and investment sources other than the purpose for which the borrowed funds were spent.

Demand for public consumption loans. Much governmental borrowing must be classified as consumption loans. The expenditure of the borrowed funds does not create income out of which to repay the loans with interest, and so they too are not self-liquidating. Borrowing to help provide the funds for carrying on a war is borrowing of this type. Loans necessary to pay the soldiers' bonus in the United States and loans amounting to billions of dollars in order to provide direct relief during the depression of the thirties are other examples of governmental loans made for consumption purposes. The United States treasury was the dominant factor in the loanable funds market during the period of the World War, and for a time it was the only really large-scale borrower during the depression. The possibility of repaying all such loans with interest depends upon the ability of governments to levy and collect taxes. By resorting to the public credit governments may postpone for a time the necessity of raising revenues large enough to meet current expenditures.

Not all government borrowing, of course, falls into the class of consumption loans. Governments, like individuals and business units, may borrow to invest the funds in productive enterprises.

Demand for production loans. In times of prosperity the great

bulk of the demand for loanable funds comes not from consumers but from producers. Entrepreneurs demand loanable funds because they believe that they can convert these funds into capital goods which will prove sufficiently productive "to pay their own way". They think they see attractive opportunities for investment. The entrepreneur's higher valuation of present dollars than of future dollars is due to the fact that they enable him to engage in the profitable roundabout processes of production.² What the entrepreneur is primarily interested in is the probable course of business, the trend of costs and prices, and the prospect for profits. If the economic outlook in these respects is promising, business men will be tempted to borrow in order to produce at capacity and perhaps to expand their operations. As long as the prospect of profits is alluring and anticipated receipts look amply large to cover all necessary costs including interest, the desire to borrow will be strong in entrepreneurs, who are the professional risk-takers of business. It is hopes and anticipations that make borrowers out of business men.

The entrepreneur's demand for loans depends upon his expectation concerning the productivity of capital.³ The productivity of capital does not mean mere physical productivity, such as the larger output of wheat or cotton cloth that results from the use of the best capital equipment. This is important but not conclusive as far as the demand for capital is concerned. Merely to prove that the use of capital goods results in a quantitatively larger product is not sufficient proof of the desirability of employing capital goods from the entrepreneur's point of view. He can only afford to borrow pro-

² It was Böhm-Bawerk, the great Austrian economist, who in developing his own *agio* or premium theory of interest (present goods command a premium over future goods of like kind and number) included what he called the "technical superiority of present goods" as a cause of interest. What he meant by this term was that present goods enable one to undertake the more roundabout or capitalistic processes of production, which are more productive than the direct methods, that do not employ them. Such technical superiority of present goods, he argued, must be included in the explanation of why men put a higher estimate upon present goods than they do upon future goods. Cf. Eugen v. Böhm-Bawerk, *The Positive Theory of Capital*, tr. by William Smart (London: Macmillan and Co., Ltd., 1891), Book V, Chapter IV.

³ Capital is not productive at all except as it is employed by labor. There is no separate and independent productiveness of capital. The productivity of capital arises when capital goods are used by labor in producing want-satisfying goods.

vided the use of the capital results in a more *valuable* product than he could obtain without it. Out of this more valuable product he is able and willing to pay interest and ultimately to retire the loan. Such value productivity of capital helps to explain the demand for loans.

The productivity of capital, like that of every other agent of production, is subject to the law of diminishing productivity, and is measured by its marginal productivity. If the amount of capital in a given establishment is increased, all other factors remaining the same, within limits the total product may be somewhat increased; but sooner or later the point of diminishing productivity is reached—the point beyond which the product per unit of capital decreases as the number of units is increased. There is an ultimate decreasing effectiveness in the use of capital in any enterprise, just as there is in the use of labor, which affects the total value productivity of capital. What every entrepreneur strives to achieve is that particular combination of capital with the other agents in production which will enable him to produce most efficiently and to sell most cheaply. He may be able to use more capital to get a better balance. He may need it and want it not to duplicate or multiply his existing tools, machines, and other equipment and materials, but to substitute better capital goods for those already in use. Sooner or later, however, he achieves such a balance that he can no longer use additional capital as advantageously as his earlier instalments, even if he can use it at all. Under such conditions, if the productivity of new capital is to be maintained or even increased, other uses for it must be found.

If we may assume an economic society in which capitalistic methods of production are generally employed and competition is effective, the subjective price of producer-borrowers tends to be measured by the marginal productivity of capital. It is the least effective or marginal use to which he puts or can put a unit of capital that determines what the producer-borrower can afford to offer for it. The more adequately supplied he is with capital, after a certain point in its utilization has been reached, the lower is its marginal productivity. On the other hand, scarcity of capital makes for higher marginal productivity. The marginal product of capital

represents what capital is worth to the entrepreneur. It guides him in deciding upon the possible use of additional units of capital. The marginal productivity principle expresses the fact that the entrepreneur's demand for loan-capital is measured by the least productive but nevertheless worth-while use to which the capital can be put. Some economists have sought to explain interest in terms of the marginal productivity of capital. To explain interest wholly in terms of the marginal productivity of capital, however, is to offer an unrealistic explanation. Such a theory assumes a perfection of competition, a degree of mobility, and a knowledge of conditions which usually do not exist. At most the principle of marginal productivity explains the demand for production loans and the source of interest on such loans. It offers no explanation of the demand for consumption loans. It furnishes no analysis of the supply or of the equilibrium between demand and supply which sets the market interest rate.

The demand for loanable funds from whatever source derived—private consumption, public consumption, or production—in interaction with the supply, advanced by individuals or business institutions, sets the market interest rate. Without such demand there might still be a psychological preference for present goods over future goods, but there would be no market interest rate. With such demand effective there is the possibility of paying interest.

EXPLANATION OF THE SUPPLY OF LOANABLE FUNDS

Meaning of the supply of loanable funds. The supply of loanable funds in a given market at a given time is the amount that prospective lenders are willing to lend at specified prices. Like the supply of commodities and labor, the supply of loanable funds available in a given market tends to be larger at the higher rates. The supply of loanable funds ultimately rests on the savings of a people. For the accumulation and placement of loanable funds in the market there must be confidence in the future security of savings, which implies stability of government, at least relative stability of the currency, and stability of basic economic institutions and laws. The necessity of paying interest arises because the supply of

loanable funds, which convey immediate purchasing power, is limited. If it were literally unlimited and could be had for the asking, no loan interest would have to be paid.

The principal sources of the supply of loanable funds are the savings of individuals, corporate savings, advances by the government, and lending by banks. What limits the supply of each and the conditions under which it will be forthcoming in the market are considered next.

Loanable funds supplied by individual savings. The volume of individual savings depends both upon the size of the income of persons and upon their willingness to forego present enjoyments for future satisfactions. There is a relatively small number of individuals in most countries whose incomes are so large that saving for them is the easiest thing they do. Saving for such individuals is both painless and effortless. Leven, Moulton, and Warburton in *America's Capacity to Consume* estimate that in 1929 the aggregate savings of the 27,474,000 families in the United States amounted to \$15,139,000,000. The relation between savings and income is indicated by the following data:

16.2 million families with incomes from zero to \$2,000 (59 per cent) show aggregate savings of about 250 million dollars.

8.9 million families (32 per cent) with incomes from \$2,000 to \$5,000 saved approximately 3.8 billion dollars.

2 million families (7 per cent) with incomes from \$5,000 to \$20,000 contributed about 4.5 billion dollars of the aggregate savings.

219,000 families with incomes above \$20,000 saved over 8 billion dollars.

About 2.3 per cent of all families—those with incomes in excess of \$10,000—contributed two-thirds of the entire savings of all families. At the bottom of the scale 59 per cent of the families contributed only about 1.6 per cent of the total savings. Approximately 60,000 families at the top of the income scale, with incomes of more than \$50,000 per year, saved almost as much as the 25 million families (91 per cent of the total) having incomes from zero to \$5,000.⁴

The savings estimated as having occurred at the different income levels strikingly reveal how much easier it is to save at the upper end of the income scale.

The same study estimates that “the 27,474,000 families of two or

⁴ Maurice Leven, Harold G. Moulton, and Clark Warburton, *America's Capacity to Consume* (Washington: The Brookings Institution, 1934), pp. 93-94.

more persons received, in 1929, an aggregate income of about 77 billion dollars, or approximately \$2,800 per family. The average number of persons per family was just a fraction over four. The median family had an income of \$1,700; that is to say, there were as many families with incomes less than \$1,700 as there were with incomes in excess of that amount."⁵ Since almost no American family of four would experience any insuperable difficulty in spending the modest sum of \$1,700 or even \$2,800 each year, provided they had it to spend, it is entirely safe to conclude that saving for the great mass of persons definitely involves effort and cost.

The extremely wealthy save because they cannot help it; they cannot possibly spend their entire incomes on consumers' goods. The middle income groups save because they have distinct economic objectives, including greater financial independence, and because their current incomes fairly easily permit them to save. For all others, saving involves extreme foresight and a careful balancing of present utilities against future satisfactions. Saving for them involves real postponement of consumption—what economists used to call "abstinence" and now more commonly designate as "waiting". The irksomeness of waiting limits the supply of loanable funds; and as long as the supply is limited in relation to the demand, interest must be paid. Interest from this point of view is a reward for past saving and an inducement for saving in the future.

Individual savings limited by time-preference. Psychologically, the saving of individuals is limited by what has come to be called the principle of time-preference. Present goods and future goods, even though of the same kind and amount, are appraised differently by the same individual at a given moment of time. Individuals differ greatly in the relative importance they attach to present goods and future goods. But at a given moment men as a rule value present goods more highly than identical future goods. This is the principle of time-preference. Professor F. A. Fetter, who coined the term, roots time-preference deep in the biologic nature of man. "To take and enjoy things as soon as the desire arises and the means are present seems to be a fundamental trait of men. The impulse to seek immediate gratification is rooted deep in man's biologic na-

⁵ *Ibid.*, p. 52.

ture.”⁶ Some men have what may be described as a high rate of time-preference; in others this preference for present goods is much less urgent. Persons with high rates of time-preference will only save and lend if the interest inducement is sufficiently strong to overcome their high time-preference. Some persons, either because they are so well provided for in the present or because they anticipate that their future wants will be more keenly felt than are their present needs, actually prefer future goods to identical goods in the present. Their time-preference is negative rather than positive.

Another version of the time-valuation principle is the “impatience to spend income” doctrine of Professor Irving Fisher.⁷ It puts the same emphasis upon time-preference as the central explanation of the rate of interest. Fisher says: “The essence of interest is impatience, the desire to obtain gratifications earlier than we can get them, the preference for present over future goods. This preference comes from a fundamental attribute of human nature. *As long as people like to have things today rather than tomorrow, there will be a rate of interest.*”⁸

In his earlier but closely related *agio* theory of interest, which has been most influential in the development of interest theory, Böhm-Bawerk sought to explain the reasons for this *agio*, premium, or preference for present goods. “Present goods are, as a rule, worth more than future goods of like kind and number. This proposition is the kernel and centre of the interest theory which I have to present,” writes Böhm-Bawerk.⁹ The premium on present goods is the resultant of three causes. In the first place, there is a difference between wants and the provision for wants in both the present and the future. Most persons are less well provided for in the present

⁶ *Economic Principles* (New York: The Century Co., 1915), p. 240. Cf. Part IV of this book for Fetter's treatment of time-value and interest. An earlier edition had appeared in 1904. Cf. also his “Interest Theories Old and New”, *American Economic Review*, IV (1914), 68–92, and his “Interest Theory and Price Movements”, *American Economic Review*, XVII (1927), Supplement, 62–105.

⁷ Cf. particularly his *Theory of Interest* (New York: The Macmillan Company, 1930), Chs. IV, XVIII.

⁸ Irving Fisher, *Elementary Principles of Economics* (New York: The Macmillan Company, 1911), p. 344.

⁹ *Positive Theory of Capital*, tr. by William Smart (London: Macmillan and Co., Ltd., 1891), p. 237. Cf. all of Book V for the development of Böhm-Bawerk's theory of the “Present and Future”.

than they hope to be in the future, and consequently they value present goods more highly. Secondly, men, both primitive and cultured, are apt to underestimate the future simply because it is the future. This underestimation of the future is due to the inability of the human mind to visualize the future as vividly as it can experience the present, to a defect or weakness in will since it requires strength of character to give up present pleasures for possible future satisfactions, and to the uncertainty of life itself, particularly over longer periods of time. Given the choice between \$10,000 now and \$100,000 seventy-five years from now, most persons old enough to choose intelligently would select the former. The hazards of the next three quarters of a century are apt to imperil the ultimate enjoyment of the larger sum. In most cases the time interval would not have to be nearly so long to elicit the same choice. Many persons in their attitude toward the future and provision for its wants are apt to be guided by the old Epicurean adage, "Eat, drink, and be merry, for tomorrow we die." A third reason for the *agio* or premium on present goods is the "technical superiority of present goods". Present goods enable those that command them to undertake, if they wish, the profitable roundabout processes of production. This, according to Böhm-Bawerk and many other expositors of interest theory, cannot be ignored in the higher valuations which men put upon present goods.

While much of the immediately preceding analysis of the estimates placed upon the present in comparison with the future may seem conjectural and lacking in precise psychological confirmation, there is abundant empirical evidence that most men have a positive time-preference. The almost universal practice of charging a premium for the loan of present purchasing power and the remarkable stability of loan interest at rates usually fluctuating between 3 and 6 per cent during the whole period of modern industrialism support the contention that there is a positive and definable time-preference.

The rate of time-preference may be looked upon as either a premium on present purchasing power or as a discount of future purchasing power. If \$100 of present purchasing power be exchanged for the promise of \$105 one year from now, \$5 may be regarded as

a premium which the borrower is willing to pay if only he can have \$100 now, or as a discount on the \$105 which he expects to have one year from now. At 5 per cent \$100 is the present worth of \$105 due one year from now. Out of the comparison of the present desirability of having \$100 now or one year hence an interest rate emerges. The sum of \$100 of present purchasing power will not usually be exchanged for the same sum payable at some time in the future, except as a premium, known as interest, is added. This premium for at least some lenders measures the intensity of their time-preference. It is a reward for their waiting and an inducement for more waiting. As long as society is dependent upon a supply of loanable funds and as long as their accumulation involves cost to someone, the payment of interest will be necessary.

Individual savings at the margin of time-preference or waiting. Not all potential lenders have time-preferences so urgent as to necessitate the payment of interest to induce them to save. Some saving would occur even if no interest were paid, and it is quite conceivable that some would go on even if those who saved had to pay others for the safe-keeping of their funds. There are motives prompting men to save other than the interest to be earned by investments. The pride and power of accumulated wealth, the security which it affords, and the opportunity it offers for the gratification of many wants that necessitate the expenditure of considerable sums at a given time would stimulate men to save even if no interest were paid. Such savings, however, might not be available for investments at all, and probably would not. Within limits hoarding might accomplish the purpose as well as allowing others the gratuitous use of the savings. To draw such savings into investment channels and to make sure that the supply will be adequate to meet the demand, interest is paid. There are potential savers at the margin of indifference between spending and saving, who will not save and supply loanable funds except in return for an inducement. Since their savings are necessary to meet the market demand for loanable funds, which are not unlimited in amount, interest must be paid. Paying marginal savers necessitates paying savers above the margin at the same rate. It is impractical to make a dis-

inction in the paying of interest between those to whom saving is easy or effortless and those who accomplish it with difficulty. In the market the dollars saved look alike and must be treated the same.

Interest then is necessary as compensation for marginal time-preference, or as an inducement for marginal saving or waiting. To forego the time-preferences of marginal savers is irksome and represents a real sacrifice or functional cost. Interest is the compensating result, and it must be high enough to reward marginal waiting. At this rate it is higher than necessary to reward super-marginal saving.

Loanable funds supplied by corporate savings. In contemporary economic society the supply of loanable funds and the interest rate are directly and indirectly affected by the savings of business enterprises, particularly corporations. Corporate saving turns on the judgments of boards of directors in deciding what part of the net income of corporations shall be distributed to the stockholders and what part shall be retained as surplus. The need of more capital, either for additions and betterments or as working capital, and the desirability of building up reserves in times of prosperity to function as shock-absorbers in times of depression largely account for the corporate savings. Usually the surplus is invested in the business of the corporation. Sometimes a large percentage of it is in cash or in forms readily convertible into cash for any of the purposes of the corporation. Business corporations with large cash reserves not constantly needed in their own business operations may lend them in the money market, thus directly affecting the supply of loanable funds. This is precisely what happened in 1929, when corporations lent hundreds of millions of dollars and made it correspondingly more difficult to develop any effective control over credit. Indirectly, the savings of corporations affect the money and capital markets because they lighten by so much the demands of the corporations themselves for funds. It is at least questionable whether the total savings would be as great if the corporations paid them out as dividends instead of retaining them as surplus.

Insurance companies are the custodians of the savings of millions

of policy-holders. The reserves against life insurance policies run into billions of dollars. Neither the interest of the policy-holders nor that of the companies warrants keeping these funds idle. They are placed in the investment market and there exert an influence upon the interest rate. Insurance companies are among the largest lenders in the long-term market. Through them policy-holders become investors in high-class bonds and real estate mortgages.

The rate of interest seemingly has little to do with the accumulation of these enormous sums of corporate savings. They are accumulated for other purposes than to procure the reward of interest. But they do exert a modifying influence in the loanable funds market. If corporate savings could meet the entire demand of the market for loans, interest rates would be lower. But they do not suffice. Savings only achieved through sacrifice and cost are still requisitioned to satisfy the demand. And such marginal waiting commands a price, which redounds to the advantage of all savers. Market rates fall, however, with increases in the supply in relation to the demand.

Loanable funds supplied through the advances of government. Governments are usually borrowers, not lenders, of funds. There are times, however, when the government may become a heavy lender and a powerful force in the loanable funds market, even though its own ability to lend may rest upon its greater ability to borrow. Ultimately, of course, the ability of a government both to lend and to spend depends upon its ability to collect taxes. Loans to the government, and what is uncollectible on advances by the government itself to private borrowers, must be met out of the revenues of government.

The most notable example in American history of large-scale lending by the federal government to other governmental agencies and to private enterprises is furnished by the Reconstruction Finance Corporation. This corporation was established in 1932 under the administration of President Hoover and extended and continued under the administration of President Roosevelt. Loans to private borrowers included loans principally to banks, other credit institutions, and the railways. On November 30, 1935, the total outstanding loans, purchases, and allocations of the Reconstruction

Finance Corporation stood at \$4,943,258,000.¹⁰ The principal source of the assets of the Reconstruction Finance Corporation was the borrowings of the government, so that the ultimate suppliers of credit were the holders of government bonds. The Reconstruction Finance Corporation lent huge sums of money to institutions whose credit in the private loanable funds markets was impaired, so that they either could not borrow at all or could only borrow at rates that seemed prohibitively high. Loans at low rates of interest were essential to safeguarding the future solvency of some of these institutions.

A striking illustration of the effect of the operations of the Reconstruction Finance Corporation upon the capital market occurred in 1936 in connection with the refunding of over \$100,000,000 of 7 per cent bonds issued by the Great Northern Railway and maturing in that year. After the railway had made tentative arrangements with private investment bankers for refunding the loan at 5 per cent plus substantial underwriting fees, the Reconstruction Finance Corporation offered to lend the money to the Great Northern Railway, whose credit was good, at 4 per cent and to eliminate the underwriting fees. The avowed purpose was the reduction of interest rates through the actual and potential competition of the government in the market.

Whenever a government whose credit is good seeks to bring such pressure to bear upon the loanable funds market, it can exert a powerful influence upon interest rates, provided its own credit does not suffer in the operations. On the whole, however, such interventions of government in the markets have been decidedly exceptional.

Loanable funds supplied through the extension of bank credit. The most generally available supply of loanable funds is furnished by the banks. All banks receive deposits, some of them subject to withdrawal on demand and others only after the lapse of a stated time interval. They also lend on the strength of their reserves. Since the lending usually merely takes the form of establishing a deposit credit in favor of the borrower (a simple bookkeeping entry), some puzzling questions arise. Is there any limit to the ex-

¹⁰ Cf. *Federal Reserve Bulletin*, December, 1935, p. 813, for details. Not all of this sum can properly be classified as loans.

tension of bank credit and the bank-supply of loanable funds? Can one properly speak of time-preference or cost of saving on the part of banks? Is it economically necessary to pay interest on bank loans just as one must on individual savings and loans as a reward for waiting? What is the effect of bank loans upon the rate of interest?

For an ordinary bank in competition with other banks in its community, there is a practical limit to the volume of its loan-created deposits set by what its reserves will support.¹¹ Moreover, loan-created deposits constitute a potential drain upon the reserves of a bank. The reserves of a bank are built up by its depositors and stockholders, usually not without effort on their part. But since banks rarely lend up to the limit of their reserves, the possible supply of bank loans is not very directly affected by time-preference or cost of saving except as their assets are themselves savings which involved the overcoming of time-preference by their depositors and stockholders. Why then is it necessary to pay banks for the accommodation of a loan? The answer is that banks cannot operate without income, and earnings from loans and discounts are usually the normal principal source of such income. What is more, banks do not occupy the entire loanable funds field. There are many types of loans which they cannot make. To supply funds adequate to meet the demand of the market for loans necessitates calling upon lenders to whom saving or waiting does represent a cost—persons who have a positive time-preference. Paying marginal savers establishes a “going interest rate”, which all lenders will claim and to which they are all entitled, since the funds they supply are equally effective and acceptable. As far as the rate of interest is concerned, superficially bank loans function in the same way as any other loans. Sudden and sharp increases in the supply of bank funds tend to lower the interest rate, and equally sharp decreases to raise it. These are temporary effects, however. In the long run a widespread expansion of bank loans without corresponding increases in the volume of production results in credit inflation, which means a rise in the price level, including higher interest rates.

¹¹ Cf. Chapter XIII, “The Credit System of Exchange”, pp. 313–317, for a discussion of the lending capacity of individual banks and of the banking system as a whole upon the basis of any addition to their reserves.

The supply of loanable funds from whatever source derived—individual savings, corporate savings, advances of government, or the extension of bank credit—in interaction with the demand for both consumption and production loans, sets the market interest rate. In the preceding qualitative analysis of the supply of loanable funds attention has been called to the principal conditions necessary for savings and some of the factors or determinants affecting the terms on which they will be offered in the loanable funds market. Cost of saving as evidenced by the urgency of time-preference is the principal such determinant in accounting for an important part of the supply. Time-preference largely controls the marginal part of the supply of savings, which is also the high-cost part of the supply. But time-preference does not tell the whole story.

It is necessary to recall that contract or loan interest is not merely net or pure interest, that is, a reward for saving. Contract interest is gross interest, which involves payment for other factors than time-preference. Some of these factors are more important determinants of parts of the supply than is time-preference itself. These factors include payments for risk and for the service involved in making and supervising the loan. The necessity of paying interest for marginal savings brings about the same minimum payment for all savings, because the market cannot discriminate among savers who furnish the same purchasing power. Superimposed upon the time-preference rate are further payments for "risk and trouble". Risks in loans vary greatly, and consequently some borrowers can obtain much more advantageous terms than others. They offer greater and better security. This is why strong and stable governments can usually command better terms than most private borrowers. Extraordinarily high rates are almost always indicative of exceptional risk.

There is also a good deal of work involved in the business of making loans. Credit standing must be investigated, established, and kept current. Collateral or mortgage security must be appraised. Sometimes precautions must be exercised that the security does not become impaired. Papers must be drawn and executed. Loans themselves must be constantly watched. A large part of the lending and investment activities of banks and insurance companies

consist of such servicing of loans. The supply-price of their loans reflects payments for service. Time-preference, risk, and loan-service or management all determine the price at which loanable funds will be offered in the market.

THE INTEREST RATE CONTRACT

Limits of the loan interest rate. The interaction of the demand for loanable funds and the supply of such funds, whatever may be the precise influence and weight of the institutional and specific determinants just considered, ultimately finds expression in a loan interest contract setting the interest rate and other terms of payment. Whenever the subjective price of the prospective borrower is equal to or greater than the subjective price of the prospective lender, a loan interest contract is possible, and an interest rate can be established by agreement. The limits of the loan interest contract vary with the type of loanable funds market, whether a consumption loan market, a money market, or a capital market, and with the prevailing conditions of demand and supply. The demand for loanable funds for consumption purposes is limited by the urgency of the time-preferences of the prospective consumer-borrowers. If the marginal utility of the goods to be acquired with the borrowed funds is great, the time-preference will be high. Under such circumstances the prospective borrowers will be willing to pay more for loans—their subjective prices will be higher—than if the reverse is true. The demand for loanable funds which are to be converted into capital goods for production purposes finds its upper limit in the net productivity of the capital, over and above the cost of maintaining and replacing it. Both consumer-borrowers and producer-borrowers are influenced in what they are willing to pay for loans by the marginal uses to which they can put the borrowed funds—marginal utility in the one case and marginal productivity in the other. The former is a matter of the urgency of an unsatisfied consumer-want. The latter turns on the least productive but nevertheless worth-while use to which the loanable funds can be put when converted into capital goods. Productivity stresses the source and size of the income out of which interest can be paid.

The lower limit of the loan interest contract is set by the time-

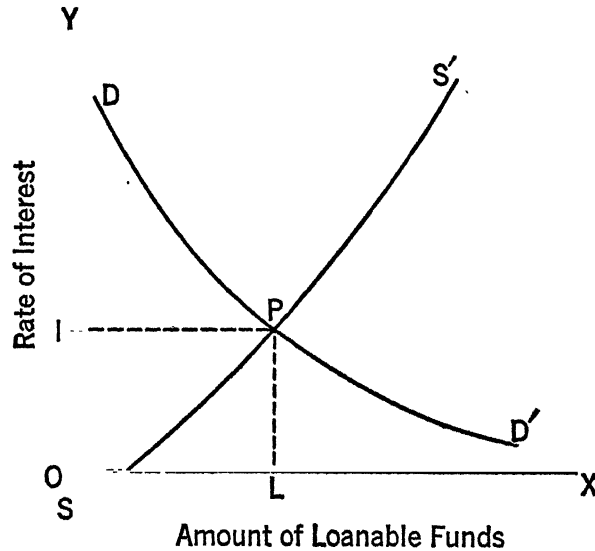
preference costs plus risk and trouble payments of those whose savings are necessary to create a supply of loanable funds adequate to meet the demand of the market. These are the *marginal savers*. Their time-preference is the *marginal time-preference*. If a rate of 5 per cent is necessary to induce them to forego the use of present purchasing power and to make it available to others in the loan market, 5 per cent is the *marginal rate of time-preference*. A considerable part of any given market supply would be forthcoming at lower rates, but not in amounts sufficient to meet the demand, and consequently in a competitive market the higher marginal rate of time-preference will prevail. Again in the loan market, as in other markets, the marginal part of the supply and the demand have distinctive significance.¹² The marginal rate of time-preference required to make available any given supply of market funds sets the lower limit to contract interest rates. Corporations, banks, and other non-marginal lenders are not obliged to lend their funds for any less and will not ordinarily do so. While some saving would occur regardless of the interest rate, and while some persons would doubtless save even more if interest rates were lower in order ultimately to achieve the income from invested savings that they desire, it is marginal saving and marginal rates of time-preference that are the pacemakers of the market.

Loan interest, a price effecting equilibrium between demand and supply. In a competitive money or capital market the loan interest rate will tend to be established at a price which will effect an equilibrium between the demand for and the supply of funds in such market. The interest rate, like every other price, is set in the

¹² Cf. foot-note on page 473 of Chapter XVIII, "Value and Price", for a comment on the diverse uses of the term "margin" in economics. In general it is useful to distinguish between the marginal importance of a good to an individual, be he buyer or seller, and the marginal part of the total demand or supply. To the individual, the marginal use is the least important use, whether from the standpoint of utility or productivity. This becomes the use of any *one* unit of a homogeneous supply on account of the free substitution of units for one another. The marginal part of the total demand is the demand necessary to dispose of an existing supply at a given price. The marginal part of the total supply is the supply necessary to satisfy an existing demand at a given price. As far as interest is concerned, individuals have marginal uses for loanable funds—their least important uses. There are also marginal borrowers and lenders responsible for the marginal part of the total demand and supply as indicated above.

market by the interaction and adjustment of demand and supply. Only a rate equalizing demand and supply offers any stability. If the interest rate is not such as to equate the demand and supply of the market, it will later be upset by an excess either in the demand or in the supply at such rate.

It is possible to represent by schedules and graphs the interaction of demand and supply in the setting of loan interest rates in a given market for loanable funds. Such schedules and graphs are largely



hypothetical because they represent both potential and actual market demand and supply, and only the actual demand and supply are known. The demand schedule and curve show the amount of loans that will be taken at each of a possible schedule of rates; the supply schedule and curve, the amount of loans available at the same rates. In the accompanying diagram of a given loan market, interest rates are indicated on the OY axis and the amounts of loanable funds on the OX axis. The curve DD' represents the rates at which prospective borrowers are ready to borrow the indicated sums. Similarly, the curve SS' represents the rates at which prospective lenders stand ready to offer the indicated sums. The supply curve SS' is shown beginning below the base line OX, which means

that some savers would be willing to lend their funds at a negative interest rate, if necessary to protect their safety. If the curves correctly represent the terms on which prospective borrowers and lenders are willing to do business, any point on the demand curve may be read by dropping perpendicular lines to both the OY and OX axes. The point of intersection with the OY axis indicates the interest rate and the point of intersection with the OX axis, the amount of loanable funds wanted at such rate. The supply curve may be similarly read. In the diagram, point P, which is common to both the demand and supply curves because it is their point of intersection, represents an interest rate measured by OI and a demand at this rate for OL in funds. When read on the supply curve, it also represents an interest rate measured by OI and a supply at this rate of OL in funds. At this rate marked by the intersection of the demand and supply curves, demand equals supply. It is the only rate which effects an equilibrium between demand and supply. If a higher rate be assumed, the supply will exceed the demand, which will tend to force the rate down. If a lower rate be assumed, the demand will exceed the supply, which in turn will tend to force the rate up. Only an interest rate that equates demand and supply offers any assurance of market stability.

The preceding analysis of the interest problem is eclectic: it does not explain the loan interest rate in terms of a *single* principle to the exclusion of all others. No single principle aptly fits all the facts of the market, no matter what may be true of interest as a psychological phenomenon. The explanation of interest here offered emphasizes the necessity of making a complete analysis of all the influences affecting the demand and the supply. Demand is a composite both of consumption loans, private and public, for which there is a high time-preference, and of production loans, which are wanted because entrepreneurs can use capital productively. They see investment opportunities and chances to make a profit for which they are willing to pay a premium measured by the marginal productivity of such capital. The supply of loanable funds is also a composite drawn from a variety of sources. Individual savings, corporate savings, advances by government, and the extension of bank credit all help to create the supply. A small part

of this supply might be forthcoming regardless of the rate of interest, some of it even at a negative interest rate. But the most important factor limiting the supply and setting the minimum supply-price is the time-preference of those lenders whose savings are essential to meeting the demand for loanable funds. The cost of producing the marginal part of the supply—that is, the marginal rate of time-preference—sets a price which all lenders will be glad to claim, whether they have any time-preference or none at all, since they are all supplying equally acceptable loanable funds. Out of the comparison of present and future, when identical goods or sums are considered, the rate of interest emerges, whether thought of as a premium on the present or discount of the future. The time-preference principle in interest theory denies neither the productivity of capital nor its marginal productivity in providing the sums out of which some interest can be paid. What it does deny is that marginal productivity offers any real explanation of the *rate* of interest; this it claims as its own distinctive contribution. Time-preference unquestionably accounts for a subjective rate of interest. Whether it will become the going rate of the loan market depends upon the intensity of the demand in relation to the supply. If consumer-borrowers are willing to mortgage future income, or producer-borrowers see opportunities for business enterprise that will enable them to repay loans with interest, a market rate of interest will be established. This loan interest rate, however, is a rate of gross interest, higher than the rate of time-preference. It covers not only net or pure interest, which is the marginal rate of time-preference, but also a payment for risk and the supervision of the investment.

LOAN INTEREST, IMPUTED INTEREST, AND CAPITALIZED INCOME

This chapter has largely been concerned with loan interest—the price, expressed as a rate per cent of a principal sum, which men contract to pay for the temporary use of borrowed funds. Loan or contract interest rates are basic to imputed interest, which has been defined as the interest allowed for or attributed to the use of the funds invested in a business enterprise. Most entrepreneurs figure

that the minimum rate of return they should allow as imputed interest is the rate they could obtain as loan interest on reasonably good security. The rate of interest on British consols or United States bonds, which constitute the direct obligations of two of the financially strongest governments in the world, comes as close to representing the rate of pure time-preference in Great Britain or the United States as any loan interest rate can. Ordinary loan interest rates are higher because of the greater risks and other costs involved. The loan interest rate, which is used as a standard of comparison in calculating imputed interest, is the going contract interest rate of a given time and place.

Interest rates are also indispensable to all valuations of the business world which are based upon anticipated incomes. Capital goods have their capital value. What determines capital value more than anything else is the capitalization of anticipated income. Capitalization assumes a rate, which interest theory must supply. Income from concrete capital goods, from land and other natural resources, from investments of all sorts, is regularly capitalized at an assumed rate to arrive at capital values. Interest rates, it is apparent, are not only basic to much of economic theory but also fundamental to valuation practice.

CHAPTER XXI

RENT

THE NATURE OF RENT

The term "rent" is commonly used, and sometimes technically used, to describe the amount paid by one person to another for the temporary use of a durable good, which is to be returned to the owner when the specified period of use has expired. Thus in the ordinary usage of the term we speak about renting a farm or an apartment, an automobile or a cap and gown. In all such cases the identical good (with allowance for ordinary wear and tear) is to be returned, together with a price for its use, when the rental period has ended. The price or rent may be \$5 per year for each acre of the farm, \$75 per month for the apartment, ten cents per mile with a minimum mileage per hour for the use of the automobile, and \$2 for the use of the cap and gown on the occasion of commencement. In all cases the rent is related to the physical goods concerned and is thought of as a price for their use. Some economists conform to this popular usage and regard all rent as just such payments for the specified use of durable goods. For them, both rent and interest are income from invested capital. The former is usually thought of as a sum or amount paid when the identical good must be returned; the latter as an amount or rate computed on the capital-value of that which was borrowed. "Rent" is the broader term, since it must logically include not only interest on the invested capital but also a payment for maintenance and depreciation. He who lends a sum of money gets back the same number of dollars. But he who lends a physical good gets it back subject to such depreciation as its use necessarily involves. His payment must be more than interest. There is much to commend this broad usage of the term "rent" as a price for the temporary use of a durable good. The present chapter, however, is concerned not with all rents, but only with the rent of land

—the income derived from its ownership and the price paid for its use.

In arriving at an understanding of the rent of land, as a price paid for the use of land or imputed to its use, and what determines such rent, it is necessary to distinguish between *contract land rent* and the *economic rent* of land. Contract land rent is simply the amount that it is actually agreed shall be paid for the use of land. Most contract land rentals include payments for the use of improvements, such as buildings (a capital charge), as well as for the land itself. Economic rent may be defined as the annual value of a piece of land as measured by its net income-producing power. It is a well-known fact that with the same application of labor and capital under the same or equally competent management, some pieces of land are more productive than others. In this superior productiveness lies the possibility of paying more for the use, or valuing more the possession, of one piece of land than of another.

FUNCTIONING OF THE LAND MARKET IN THE ESTABLISHMENT OF CONTRACT RENTS

In the land or real estate markets of the country two types of transactions occur: the leasing of land for stipulated contract rentals, and the sale of land in which the title of ownership passes from seller to buyer. Prices of course emerge in both types of transactions. How both contract rent and the sale-price of land are strongly influenced by what economists, for lack of a better name, have called the "economic rent" of land, is the central theme of the discussion that follows. Contract rent is considered first and then the price of land when ownership rights are transferred from one party to another.

Contract rents as phenomena of the markets arise out of the same sort of market functioning as has already been considered in the determination of commodity prices, wage rates, and loan interest. Both structurally and functionally land or real estate markets are not unique. Again the *market* is a series of *transactions* between *parties* who formulate *subjective prices* as terms on which they are willing to become landlords and tenants, lessors and lessees, as the

parties to a leasehold transaction are called. Many land markets, particularly in agricultural land, are less formally organized than urban real estate markets, for example. The transactions may be negotiated directly between the interested parties without the aid (or intervention) of any middlemen. Although the transactions of many real estate markets are rather disjointed and in dull times highly infrequent, the essence of such markets is nevertheless a series of transactions each of which results in a market price. The subjective prices of tenant and landlord, which in the aggregate make up the demand and supply of the market, are influenced by certain *general* and *specific determinants*. It is the particular task of rent theory to set forth these specific and general determinants of the subjective prices of the parties to contract rent transactions in a given land market. The institutional setting of time and place, including the force of custom, the power of monopoly (which is stronger here than in the markets for reproducible goods), the possible assertion of public authority, and the strength of competition help to mould the terms on which men are willing to do business in the land market. But it is the productivity or income distinctively attributable to land which specifically determines what men are willing to pay, and also able to get, both for the temporary use and the more permanent possession of the land.

EXPLANATION OF THE DEMAND FOR AGRICULTURAL LAND

In accounting for contract rents it is again necessary to resort to the market for an analysis of the forces that create a demand for land and its uses when the supply of desirable land is limited. In considering the theory of rent it will simplify matters to think first of the rent of agricultural land and then of urban land.

Meaning and sources of the demand for land. In any rental market the demand for land is the amount of land that prospective tenants are ready to lease or rent at specified prices. Some of this demand comes from consumers who want land, improved by buildings, for the direct satisfaction of their housing wants. More of it comes from entrepreneurs who want land on account of its productivity. Land may be used for a great variety of purposes. If one

traveled west from the intersection of State Street and Madison Street in the city of Chicago, an important business center of the city, and noted the uses to which land is being put, a succession of different uses would be seen. The most important use from the standpoint of income to which land can be put in the heart of Chicago is of course the use for business. Trade flourishes in the centers of cities where the lanes of traffic converge and men congregate. Next the traveler might note land devoted either to residences or industries, depending upon the exact route taken. In any event both uses are there; the exact order in which they come into view is of no great importance. On the outskirts of the city, truck gardening or farming, the most intensive form of agriculture, would be seen. Leaving the environs of Chicago the observer would travel through a rich agricultural region practising diversified farming, with the raising of corn and hogs and the management of dairy herds predominant. Wheat lands would appear farther west. Still farther on the predominant use of land over a wide expanse of territory is its use for cattle-grazing. And practically all along the route, small patches here and large tracts there, are lands which it does not pay to use at all under present conditions. All of these diversified uses of land help to create the demand for land and, because the supply is limited in relation to the specific demands for it, to give it value.

Like all other prospective buyers, tenants, who are buyers of some of the uses of land, must have purchasing power in the form of cash or credit to make their desire for land effective in the market. How much of the purchasing power at his disposal can a tenant afford to pay for the use of a particular piece of land? That depends upon its importance to him either as a consumer or as a producer. What the producer-tenant, operating a farm, can afford to pay is determined by his estimate of the productivity of the land. The productivity of agricultural land varies sharply.

Causes of the differential productivity of land. The superior productiveness of certain lands over others is sometimes found in differences in the quality of the land, and at other times in differences in location.

In general we sum up differences in the quality of the land under

the single term "fertility". There are physical conditions affecting such fertility. The temperature and humidity of the air, the mechanical structure of the soil as to coarseness or fineness, the topography of the country affecting particularly the erosion of the soil, and obstacles in the way of cultivation such as glacial boulders or tree-stumps on cut-over lands, are important physical conditions affecting the fertility of the land. There are even more important chemical conditions which affect it. The presence or absence of certain elements, such as carbon, nitrogen, potassium, and phosphorus, and of poisonous conditions such as acidity, present vital problems to the practical farmer who wants large yields per acre. There are also certain biological conditions which cannot be ignored in explaining the fertility of the land. The presence in the soil of the useful nitrifying bacteria, the absence of destructive bacteria through good sanitation, the action of the common earthworm in promoting the capillarity of the soil, the elimination of pests such as field-mice and gophers, and the eradication of troublesome weeds like Canadian thistle and quack-grass, do much to improve growing conditions and ultimate productivity. Natural fertility of the soil reduces unit costs of production. The land that has it is prized more highly than land that is deficient in this respect, particularly in a country where it is necessary to resort to lands of varying fertility in order to produce adequate food supplies.

Differences in location are responsible for the differential productivity of equally fertile agricultural lands, if we may assume that there is no difference in the application of labor and capital. In the case of agricultural land, location means, particularly, ready accessibility to markets.

Productivity as a specific determinant of the demand for land. The productivity that specifically determines the entrepreneur's demand for land is value-productivity. In the case of agricultural land it is possible to think of it first of all in terms of physical productivity, consisting for example of a given number of bushels of grain. Whatever the nature and volume of the physical products may be, however, it is the price which they bring when sold in the markets that determines the ultimate income from land. And it is this income specifically imputed to the land, over and

above the expense of utilizing it, that determines what any prospective buyer of land-use can afford to pay for it.

In cultivating the land a given quantity of labor and capital can either be spread over a larger area of land, if land is abundant, or be applied more intensively to a smaller area. In new countries, where land is plentiful and labor and capital are apt to be the limiting factors in production, an extensive rather than intensive agriculture is usually practised. When land becomes relatively more scarce and heavier demands are made upon it, it is necessary to cultivate land much more intensively.

If a given combination of labor and capital is applied to lands of varying grades, the grades being due to differences in fertility and accessibility, varying products will be obtained. These differences in the productivity of various grades of land, when all are cultivated with uniform intensivity, are one way of accounting for the economic rent of land, and perhaps the simplest to understand. This factor has been called the *differential principle* in rent theory.

But instead of applying uniform "doses"¹ of labor and capital to different pieces of land, a succession of equal doses may be applied to each of the better grades of land up to the capacity of each to absorb them without loss on the productive operations. The application of the successive increments of labor and capital does not give uniform results. Productivity has a tendency to diminish. Costs per unit of output, on the contrary, have a tendency to increase. But if the high-cost part of the supply is to be regularly produced, market prices must be high enough to cover the outlays in producing it. Since all like units of a commodity will command the same price in the same market, no matter what it may have cost to produce them, the market price of the high-cost part of the supply will become the price of every other unit of the supply. Under such conditions it is obvious that the farmer who finds it advantageous to apply a succession of doses of labor and capital to his land receives a surplus over and above his expenses for doing so. This surplus product arising out of the varying intensivity of the

¹ Apparently the term "dose" was first used by James Mill in his *Elements of Political Economy*. Cf. Alfred Marshall, *Principles of Economics* (London: Macmillan and Co., Ltd., 1916), p. 153.

cultivation of each of the better lands is another way of accounting for the economic rent of land. It has been called the *diminishing returns or productivity principle* in rent theory. The application of each of these principles in accounting for rent will be considered next.

Productivity measured from the extensive margin of use. If all agricultural land were equally good, as to both quality and location, and so capable of carrying with equal effectiveness the same applications of labor and capital, there would be no differential productivity of land. (The law of diminishing returns, however, would still apply.) Under such assumed conditions one piece of land would be worth as much as another. Such assumptions, however, are contrary to fact. There are marked differences in the productivity of land. If this is true, why should anyone ever make use of the inferior lands? The answer is that either an increase in population or an increase in wealth brings about an increase in the demand for goods, which ultimately means an increased demand for the land. It is the growing scarcity of the better lands and the necessity of resorting to the poorer grades, that is responsible for economic rent. Whenever it becomes necessary to utilize different grades of land, economic rent emerges. Economic rent under assumed conditions of uniform intensivity in the utilization of land is measured from the *extensive margin* of use. The poorest land which it pays to utilize is at the extensive margin of use. It is marginal land. The product obtained from it is just large enough to cover all the labor and capital costs of whatever kind involved in utilizing it. It yields no surplus above expenses, and consequently no rent can be paid for its use. It is no-rent land. Lands are cultivated with uniform intensivity when the same amounts of equally efficient labor and capital under equally competent managements are applied to different grades of land. Under competitive conditions, when lands are cultivated with uniform intensivity, the total expenditures for labor and capital are the same on each piece of land. But since there are sharp differences in productivity, unit costs will be different and the better grades of land will yield economic rents.

Let us assume five grades of agricultural land, equal in area and cultivated with uniform intensivity by applying \$2,400 of labor and

capital to each. The only variable in the situation is the quality and location of the land. Grade E land is marginal because it yields a value-product just large enough to pay for all the expenses of cultivation. The following table summarizes the results.

ECONOMIC RENT UNDER ASSUMED UNIFORM INTENSIVITY OF CULTIVATION

RENT FACTORS	GRADES OF LAND				
	A	B	C	D	E
Labor and Capital Costs	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400
Physical Output in Bushels	4,800	3,750	3,000	2,400	2,000
Cost per Bushel	\$.50	\$.64	\$.80	\$1.00	\$1.20
Selling Price per Bushel	\$1.20	\$1.20	\$1.20	\$1.20	\$1.20
Total Value-Product	\$5,760	\$4,500	\$3,600	\$2,880	\$2,400
Economic Rent	\$3,360	\$2,100	\$1,200	\$ 480	....

Physical output measured in bushels differs because of differences in the quality of the land. Since the same amount of money is spent on each grade of land, the cost of producing one bushel varies from fifty cents on Grade A land to \$1.20 on Grade E land. But if Grade E land is to be cultivated at all, the selling price must be at least \$1.20 per bushel. In accordance with the familiar theory of marginal costs, the selling price must be high enough in the long run to cover the cost of producing the marginal part of the supply, that final part of the supply needed in order to satisfy the existing demand. A selling price of \$1.20 per bushel for the marginal part of the supply, in a competitive market, becomes the selling price of every other bushel of supply. Market price tends to equal the marginal cost of production. Because of common selling prices and varying costs of production per bushel of output, the total value-productivity ranges from \$5,760 on Grade A land to \$2,400 on Grade E land. The cultivation of Grade E land just pays for itself. Each of the other four grades yields a surplus over the expenses of cultivation. This surplus, amounting to \$3,360, \$2,100, \$1,200, and \$480, respectively, for the Grade A, B, C, and D lands, constitutes the economic rent.

Economic rent, then, under the assumed condition of uniform intensivity of cultivation, is a differential which measures the pro-

ductive superiority of the better land over marginal land. It is this economic rent which a tenant can afford to pay the landlord as contract land rent. To the extent that practical experience has taught him how to estimate it, it will determine his maximum subjective price. It is this economic rent which the landlord endeavors to procure in the form of contract land rent.

Productivity measured from the intensive margin of use. The cultivation of all land, good, bad, and indifferent, with uniform intensity is not the ordinary and regular course of farming procedure. Good business judgment dictates that the better lands shall be cultivated more intensively than the poorer lands. But in the more intensive cultivation of the better lands, sooner or later, the point of diminishing returns is reached, and ultimately also a marginal employment of labor and capital beyond which it does not pay to go. The principle of diminishing productivity, already noted in our study of the productive uses of labor and capital, is just as characteristic of the use of land. It is commonly called the law of diminishing returns when applied to land. The law of diminishing returns states that when successive equal doses of labor and capital are applied to a given piece of land, a point is reached after which further doses produce a diminishing return per dose. The successive increments of labor and capital do not produce proportional returns.

If it were not for the law of diminishing returns (as inexorable in the economic world as the laws of freely falling bodies are in the physical universe), there would be no economic rent. If from every application of labor and capital it were possible to get proportional instead of diminishing returns, it would be unnecessary to use the inferior lands, and there would be no increasing cost per unit of output on the best land. The mere postulation of this contrary-to-fact condition reveals the importance of diminishing returns in our economic life.

In applying successive increments of labor and capital to a given piece of land, not only does the productivity per unit diminish, but finally a marginal use of labor and capital is reached. The cultivation of any piece of land has reached the *intensive margin* when the last dose of labor and capital applied to it yields a product that is

just large enough to pay for itself. Economic rent under conditions of varying intensivity in the utilization of land is measured from the intensive margin of use. The product of the intensive margin of use of the better lands equals the product of the poorer lands at the extensive margin of use, since both (by definition) are just large enough to cover the cost of applying the unit of labor and capital concerned.

The obverse of the law of diminishing returns is the principle of increasing costs. Indeed, the latter is only another way of looking at the facts covered by the former. If the productivity of land per unit of labor and capital tends to decline, it follows that the product is being obtained at an increasing cost per unit. The following illustration furnished by a wheat farm capable of intensive cultivation shows the interdependence of diminishing returns and increasing costs.

DIMINISHING RETURNS AND INCREASING COSTS ON FIXED AMOUNT OF LAND			
<i>Number of Equal Doses of Labor and Capital at \$2,400 Each</i>	<i>Cumulative Output in Bushels</i>	<i>Additional Output in Bushels per Dose</i>	<i>Cost per Bushel of Additional Output</i>
1	4,800	....	\$ .50
2	8,550	3,750	.64
3	11,550	3,000	.80
4	13,950	2,400	1.00
5	15,950	2,000	1.20

The table shows that while the productivity declines from 4,800 bushels for the first dose to 2,000 bushels for the fifth, the cost per bushel of additional output rises from \$.50 for the first dose to \$1.20 for the fifth. The law of increasing costs in agriculture makes it impossible to concentrate only upon the best lands in raising the necessary food supply for the world. The sharply increasing unit cost of obtaining ever larger food supplies from fertile land ultimately results in so high a marginal cost that society cannot afford to pay it. Even the most fertile soil in the course of intensive use proves reluctant to yield any more.

What happens in the everyday cultivation of the soil is that men both spread their activities out over larger areas and at the same

time cultivate the better soils more intensively. They simultaneously work *out* to the extensive margin on the poorer lands and *down* to the intensive margin on the better lands. The practical choices to be made in the application of equal doses of labor and capital either to a given piece of land or to different grades of land may be illustrated by the following table, showing the yield in bushels of wheat per five-acre tract.

PRODUCTIVITY MEASURED FROM BOTH THE EXTENSIVE AND THE INTENSIVE MARGINS					
PRODUCT IN BUSHELS FROM EACH DOSE OF LABOR AND CAPITAL COSTING \$25	GRADES OF LAND (five-acre tracts)				
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
First Dose	40	35	30	25	20
Second Dose	35	30	25	20	15
Third Dose	30	25	20	15	10
Fourth Dose	25	20	15	10	5

With a necessary expenditure of \$25 for each dose of labor and capital, the wheat would have to sell for at least \$1 per bushel to make it profitable to cultivate Grade D land at all, and \$1.25 per bushel if Grade E land is to be used. If we assume that the market price is \$1 per bushel, Grade D land is at the extensive margin of use, since it just pays to apply one dose to it, and Grade E land is sub-marginal. With a market price of \$1 per bushel established, the intensive margin is reached on the Grade A land with the fourth dose, on the Grade B land with the third, on the Grade C land with the second, and on the Grade D land with the first. The surplus over expenditures, that is, the economic rent, of Grade A land when cultivated as intensively as it will stand (four doses) at the prevailing market price of \$1 is \$30; of Grade B land (three doses), \$15; of Grade C land (two doses), \$5. Grade D is marginal and accordingly yields no economic rent. If the cost of applying a dose of labor and capital were increased from \$25 to \$30, and at the same time wheat could not be sold for more than \$1. per bushel, the ex-

tensive margin would have to be "pulled in" and the intensive margin would have to be "lifted". Grade C land would now be at the extensive margin, and the intensive margin would be reached with the application of the third dose on Grade A land and the second on Grade B land. Total economic rents would be correspondingly less. When the margin of cultivation of land recedes, rents increase; when the margin rises, rents decrease.

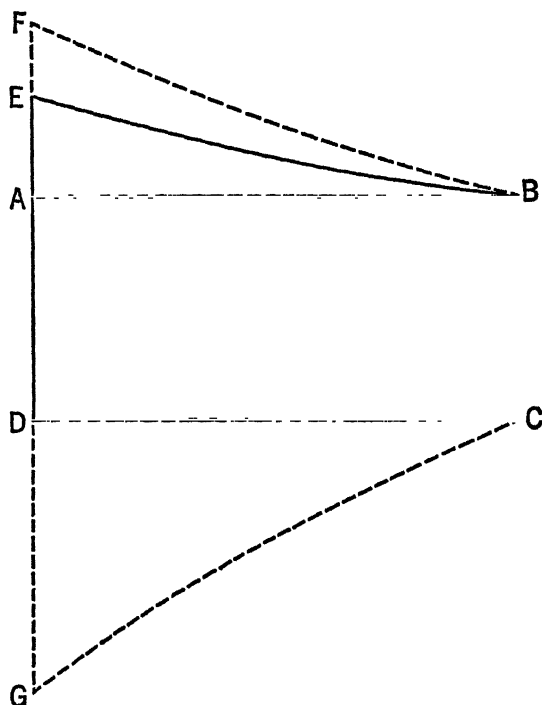
The full economic rent of a piece of land is only realized when it is cultivated as intensively as its capacity to absorb labor and capital permits. Economic rent is a surplus which arises from the use of the most advantageous combination of labor and capital on any piece of land, in comparison with what could be obtained from the application of the same amount of labor and capital on marginal land. It would of course be impossible for a farmer economically to use the same amount of labor and capital on marginal land that he uses on a piece of much better land, except as he spreads the labor and capital out over a larger area of marginal land. Rent is a surplus of product over outlay due both to the differential productivity of different grades of land and to the operation of the law of diminishing returns and increasing costs on all lands.

The relation between rent and costs, when lands of different grades are cultivated and the better lands are cultivated more intensively, may be shown by the diagram on the following page.

The diagram represents the total value-productivity of certain lands, ranged from the best at the extreme left of the diagram to the marginal land at the extreme right. The value-productivity of each piece of land may be thought of as represented by vertical lines like FG, BC, or any line parallel to them. The area enclosed by the solid lines EBCD represents the total value-productivity of all the lands when they are cultivated with uniform intensivity. BC represents the marginal product and the marginal cost of production, since by definition the two are equal. Under conditions of uniform intensivity of cultivation BC also becomes the cost of production on each of the other pieces of land. Then the area ABCD represents the total cost of production of all the lands and EBA the total economic rent when the lands are cultivated with uniform intensivity.

EA is the economic rent of the best land, measuring its superiority over the marginal land, BC.

The area set off by the broken lines DGC marks the additional total cost due to varying intensity of cultivation, and the area FEB the additional economic rent obtained from such more intensive cultivation. Everything below the line AB represents costs, and every-



thing above, economic rent. The full economic rent of the best land under the conditions of cultivation represented is not EA but FA. It is measured by the difference (FA) between the total value-productivity (FG) obtained by cultivating it through the use of whatever doses of labor and capital it has the capacity to absorb, and the expense of utilizing it (AG). The economic rent (FA) represents the maximum price that any prospective tenant can pay for its use.²

² The broad outlines of the theory of rent were sketched by David Ricardo in his *Principles of Political Economy and Taxation* (London, 1817), Chapters II, III.

EXPLANATION OF THE SUPPLY OF AGRICULTURAL LAND

The demand for land, whether directed toward its temporary use or more permanent possession, makes land valuable, because at the same time the supply of land is limited in relation to human wants. The distinguishing thing about the supply of land in contrast to the supply of the other agents in production is that man cannot as readily adjust the supply of land to his changing production needs as he can adjust the other factors. The supply of land is less amenable to human control than is the supply of produced capital. The latter in the long run can be indefinitely increased, which is out of the question in the case of land. While this is doubtless a difference in degree rather than one of kind, it has important bearings upon economic rent and the value of land. Since it is possible indefinitely to increase the supply of produced capital, the returns from various units of capital tend to be equalized. Because it is impossible easily to increase the supply of economically desirable land, the returns from various units of land tend to become very unequal.

As far as the supply of land is concerned, the ultimate limiting factor is of course what nature has furnished in the geographic supply of land. This is wholly a matter of acreage. Man has reclaimed a little from the waters, but on the whole reclaimed land represents only a small percentage of the total. Not all of the geographic supply of land is usable; consequently, not all of it is included in the economic supply of land. Land that is scarce must be capable of use either for production or for the direct satisfaction of human wants in order to be counted as part of the economic supply. Throughout economic history more and more of the geographic supply has become economic land. Improved means of transportation rendering distant areas available, the discovery of means for utilizing waste lands, and reclamation projects illustrate ways in which the economic supply of land has been increased. At any given time and place only a small part of the economic supply of land constitutes the actual market supply of land, although potentially much more might be included. In any rental market the supply of land is the amount of land that prospective landlords are ready to rent or lease to others at specified prices. What sets their prices it is the problem

of rent theory to demonstrate, no less than to show what sets the subjective prices of prospective tenants. But the basic analysis is the same.

Land, once the free gift of nature, has become the object of private property rights. The landowner who rents his land to a tenant is a seller of the use of the land. His subjective price expresses his choice to sell the use of the land for a given equivalent. If he has any withholding power he may at times choose not to offer his land, in the expectation that by helping to restrict the market supply he will help to advance the rents. The chief determinant, however, of the landlord's subjective price, in the case of agricultural land, is his own estimate of the productivity attributable to the land. The income specifically attributable to the land, over and above the expense of utilizing it, not only determines what any prospective tenant or lessee can afford to pay for it but also what the prospective landlord or lessor can hope to get. The entire preceding analysis, then, of the productivity of land, and the differential and the diminishing returns principles as ways of measuring the economic rent, are just as germane in explaining the market supply of land as they are in explaining the demand. Both buyer and seller of land-use, tenant and landlord, are guided in the formulation of their subjective prices by what they estimate the economic rent of land to be, that is, by the net income which they impute to the land.

THE CONTRACT RENT BARGAIN IN AGRICULTURAL LAND

Contract rent, as its name implies, is a matter of agreement between a tenant and a landlord as parties to a leasing transaction. Whenever there is an equality or overlapping of the subjective prices of prospective tenants and landlords, the prices of the former being equal to or greater than those of the latter, contract rents can be established through agreement. What the tenant can afford to pay is the economic rent of the land, which he must estimate as best he can. If he can procure the use of the land for anything less than its full economic rent, that is of course to his advantage. The landowner, functioning as lessor of the property, is interested in obtaining all that he can for its use. The most that he is entitled to get is

the full economic rent of the land, which he, too, must estimate with experience as his guide. If he gets any more, it must be at the expense of other income of the tenant, such as his wages.

If perfect competition be assumed, there is a strong tendency for the contract rent to equal the economic rent. The competition of the market must be two-sided, and this is as true of prospective landlords as it is of prospective tenants. If competition is perfect, the landlord cannot exact more than the economic rent from a tenant because the latter has the alternative of occupying other lands where his labor and capital can be at least as profitably employed and where he does not have to pay a rental exceeding the economic rent. On the other hand, if competition is equally effective among tenants, a tenant cannot secure the use of land for less than its economic rent, because if he is unwilling to pay that rent some other prospective tenant will. Moreover, he might as well pay the economic rent on land that he wants to occupy, because under the assumed conditions he cannot find a more profitable employment for his labor and capital.

Competition in the land market, however, is usually far from perfect. The inertia of custom is powerful in fixing contract rents. There is much ignorance as to what the real economic rent of a piece of land is, and much inability to compute it with precision. Long-time contracts, during which the amount of the rental payments is not changed, may result to the advantage of one and to the disadvantage of the other party to the contract, provided the economic rent of the land has changed materially during the contract period. Such considerations are responsible for the fact that contract rents often vary widely from economic rents.

THE RENT OF URBAN LAND

The preceding analysis of economic rent and contract rent of land has dealt very largely with agricultural land. Economic rent, however, appears in all uses of land. It is just as characteristic of urban land as of agricultural land, and of all the varied uses to which urban land can be put.

Much urban land is wanted for residential purposes, which is a

consumption-want. Into the selection of choice residential sites many factors enter, such as proximity to parks, accessibility to schools, ease and convenience of transportation, the quiet and cleanliness of the neighborhood, and other less tangible social factors. What the consumer-tenant can afford to pay, or at least is willing to pay, is determined by the marginal utility of the land-use to him. As a consumer he does not contemplate using the land productively. With him it is wholly a matter of the importance to himself of having or going without a particular site. It is a question of the importance to himself and family of living in one place or locality rather than in another. In buying such a land-use the same principles of valuation apply as obtain in acquiring any other consumption good.

Much other urban land is used for business and industrial purposes. In such use location is the principal factor accounting for the differential productivity of the land. A given investment of capital and labor in merchandising will yield much higher returns on State Street, Chicago, or Fifth Avenue, New York, than in the outskirts of these cities, if one can imagine it invested in the outskirts at all. The best business sites are found on the great arteries of pedestrian traffic. Because all urban sites are not equally good for a given purpose, and because some sites will stand a very much more intensive development than others, economic rent emerges. Urban rents, like agricultural rents, are explained by the differential and the diminishing returns principles.

Retail trade and office building sites offer the most convenient and familiar illustrations. Retail stores require steady patronage and a rapid turnover of their merchandise for their greatest success. The choicest sites are the locations where the largest number of persons whom the retail merchant would like to attract as customers regularly pass. It is a great advantage to be located in the central shopping district. Not all can be. There are many grades of business sites ranging from the best to marginal sites which it just pays to utilize for business. When equal investments of labor and capital are made on these sites, under managements that are fairly comparable, the only conclusion that can be drawn when the incomes differ sharply is that the differences are due to the varying efficiency of the several locations. Those that occupy the better sites and are

the recipients of the larger incomes are able to pay for the opportunity of doing business on the superior locations.

In cities there is usually no land at the extensive margin of all uses, which may be obtained without the payment of rent. There is land, however, that is marginal for business and other specific uses. What happens as business expands to occupy less and less desirable locations is that ultimately a location is reached which cannot be used any more advantageously for business than it can for some other purposes, such as residence sites. It is marginal for businesses but still above the margin for other possible uses. As long as land is super-marginal for any use, it commands a rent. Only land that is marginal for all possible uses is really no-rent land. The economic rent of urban land, then, when devoted to business is in part explained as a differential which measures the superiority of a given piece of land over marginal land.

But the differential principle is only a partial explanation of the economic rent of urban land. The better lands are used very much more intensively than the poorer. Even the casual observer notes this when he contemplates the towering heights to which office buildings and hotels rise in our large cities. On a smaller scale similar differences in intensity of use are characteristic of less populous centers. In deciding how much of an investment to make in improving a given urban site for a specific purpose, the law of diminishing returns must be taken into consideration. This limits the number of stories in an office building or hotel, and the number of floors in an apartment house, that can be economically constructed and used. There is also an intensive margin of use in such urban properties beyond which it does not pay to go. If the productive utilization of a given piece of land is pushed beyond this point it will not pay; more income would be forthcoming from the investment of the same amount of labor and capital on less advantageously located land. Thus the law of diminishing returns is partly the cause of resorting to successively less desirable lands for each of a series of possible uses.

The economic rent of urban lands, although complicated by the more diverse uses to which such lands can be put, emerges from the operation of the same differential and diminishing returns principles as does the economic rent of agricultural land. The economic rent

of both types of land is increased by the "dynamic principle", recognized by Ricardo, of pressure upon both the extensive and intensive margins caused by increase in population and wealth. Whether the contract rent will fully absorb the economic rent or vary from it in either direction depends upon the effectiveness of competition in the urban lands market.

CAPITALIZATION OF ECONOMIC RENT AND THE VALUE OF LAND

Economic rent is the basis of property values in land. The owner of land may receive it in the form of contract rent if he has leased his property to others or in the form of imputed rent if he uses the property himself. When a farmer uses his own farm or a merchant his own business site, and so pays no one else any contract rent, it is still true that part of the gross income of the farm or the retail business must logically be classified as economic rent, because it is distinctively due to the land. It is this economic rent which anyone can afford to pay for the use of land or exact for its use; and it is the capitalization of economic rent which forms the basis of land values for purposes of purchase and sale.

Land is valued by both buyers and sellers because it yields a rent. Since the economic rent is regarded as a regular income, although subject to advances and declines, it may be capitalized at an assumed rate of return, such as the current rate of interest. If a farm yields an economic rent of \$1,000 and the rate of return on money invested in farms is assumed to be 5 per cent, a prospective buyer could afford to offer \$20,000 for it. An investment of \$20,000 at 5 per cent nets \$1,000.³

³ The value of land may be stated as the sum of a series of values representing the present worth of definite amounts of income expected in the future. The sum of \$1 at 5 per cent interest will in one year amount to \$1.05; in two years, with allowance for compounding, to \$1.1025; in three years, to \$1.1576. The present worth of \$1.05 payable one year from now is \$1; of \$1.1576 payable three years from now is \$1. If the sum to be paid annually is constant, say \$1,000, the present worth at 5 per cent of \$1,000 payable one year from now is $\frac{\$1,000}{1.05}$; in five years, $\frac{\$1,000}{(1.05)^5}$. If a farm is thought capable of yielding rent of \$1,000 payable at the close of the first year and thereafter at annual intervals in perpetuity, and if the

If the expectation is that economic rents will increase, prospective buyers will be willing to pay more than the capitalization of the present economic rent at the current rate of return, and prospective sellers will also be inclined to ask for more. The obverse will hold for falling land values. The value of land, like the value of anything else, is a resultant of the interaction of the market forces of demand and supply. Both the demand and the supply reflect the subjective prices of prospective buyers and sellers, which are based on the capitalization of the economic rent. If buyers and sellers estimate the economic rent differently, or use different rates of capitalization, or assume different trends for economic rents and land values in the future, they will arrive at different results. If the subjective prices of prospective buyers are equal to or greater than the subjective prices of prospective sellers, land sales are possible. The ordinary forces of a competitive market will help to establish a price equilibrium.

When a purchaser of land has capitalized its net income, and made his financial commitment in landed property, he thereupon regards his investment in land like any other capital investment. To him it is now acquisitive capital. Upon it he expects a fair rate of return. From it he anticipates a steady flow of income.

Since land values are ultimately based upon the net income or productivity of the land, it follows that land products are not high because the value of the land is high, but the value of the land is high because the value of land products is high.⁴ What causes the high value of land products is a strong, sustaining demand and the necessity of resorting to inferior lands to satisfy this demand. The use of inferior land lowers the margin of utilization, increases the

interest rate is assumed to be 5 per cent, the present value of the land is the sum of the present worths of the anticipated future rental payments. It may be represented by the series $\frac{\$1,000}{1.05} + \frac{\$1,000}{(1.05)^2} + \frac{\$1,000}{(1.05)^3} + \dots + \frac{\$1,000}{(1.05)^n}$. The sum of this series, if assumed to be infinite, is \$20,000. An investment of \$20,000 at 5 per cent can be counted upon to return an annual income of \$1,000.

⁴ Cf. Ricardo's celebrated statement: "The value of corn is regulated by the quantity of labour bestowed on its production on that quality of land, or with that portion of capital, which pays no rent. Corn is not high because a rent is paid, but a rent is paid because corn is high; and it has been justly observed, that no reduction would take place in the price of corn, although landlords should forego the whole of their rent." *Principles of Political Economy and Taxation* (London, 1817), Chapter II.

unit costs of production, raises prices, and increases the economic rent of the better lands.

In contemplating the advantages and disadvantages of making an investment in certain types of land, prospective buyers are influenced by what has been called the "ripening costs in land utilization". Dr. Richard T. Ely describes these as follows:

The term ripening costs in land utilization is new. . . . Broadly conceived, ripening costs occur when land is ripening from one use to a higher use, for it takes time to change from one use to another. They consist of expenditures made, or income sacrificed, during this period. If the holder of the land is a private individual, the costs are in the form of taxes, special assessments, and interest foregone, which must be paid or sacrificed even when there is no income from the land. These costs of ripening use are particularly significant in the case of land because of the large investment and longer period of time required to change from one use to another.⁵

Such costs are of real importance, particularly in the case of urban land, when often a considerable period of time must elapse before the demand grows up to the supply. Yet much urban land must be platted and developed in advance of its use. It takes time and costs money to make it ready for use. Such costs are real and may limit the economic supply of land for a given use. By withholding land from one use and holding it available for another use men may affect the supply of land for each use, and through changes in the supply affect the income from such land. They must look to the ultimate economic rent of the land, however, or to the capitalized value of its economic rent, for their reimbursement. Ripening costs are carrying charges which must be borne during a time when the land to which they pertain yields no income. But while they affect the desirability of landed property as a form of investment, they do not invalidate the previous explanation of the causes of economic rent. Land values are distinctly based on the capitalization of the net income of land and are established in the market through the interaction of demand and supply.

EFFECTS OF TAXATION UPON RENTS AND LAND VALUES

Economic rent, this peculiar surplus due to the differential produc-

⁵ *Economic Essays* contributed in honor of John Bates Clark (New York: The Macmillan Company, 1927), p. 129.

tivity of land, even under existing taxation laws cannot all be retained by the owner of the land. The ordinary property tax annually takes its toll. What is known as the unearned increment tax has been proposed in many places and put into force in some. But the most drastic of all proposals affecting the economic rent of land goes under the name of the "single tax". It proposes to take all of the economic rent in lieu of all other forms of taxation.

Effects of current property taxes. If the economic rent of a piece of land is \$1,200 and it is appraised at \$20,000 for taxation purposes, the net income of the owner is not \$1,200 but \$1,200 less the amount of the property tax. If the property tax rate in the community concerned happens to be fifteen mills (\$.015) per dollar of appraised valuation, the owner's tax bill will be \$300 and his net income \$900. Existing property taxes reduce the net income derived from the ownership of land which yields an economic rent.

A piece of property located in a city, and also appraised at \$20,000 for taxation purposes, would almost everywhere have to carry a higher rate of taxation than the agricultural land. Urban property taxes are usually higher because urban government costs more. If the urban tax rate is twenty-five mills (\$.025) per dollar of appraised valuation, it is obvious that the property tax against this piece of real estate will be \$500.

Plan of the unearned increment tax. Economic rent has occasionally been taxed as an unearned increment. An unearned increment in the value of land is an increase in value due solely to the operation of social forces rather than to the efforts of individual owners. The social forces chiefly responsible for the increase in land values are growth in population and growth in the income and wealth of the people, which result in a more active demand for land and its uses. Under a system of unearned increment taxation any increase in land values accruing after a given date is subject to heavy extra taxation. The unearned increment tax lets bygones be bygones and takes only part or all of the future unearned increments. In this respect it stands in contrast to the single tax, which socializes past unearned increments as well. The tax may be collected at the time of the sale of the land or at periodic intervals. To the taxation of future unearned increments in land values there can be no serious

objection in principle. If the government serves notice upon all that after a certain date the rules of the game of land ownership are to be changed and that thereafter further increases in land values will be taken by the state, no valid criticism can be passed on the fairness of the policy. The proposal to socialize future unearned increments is not a question primarily of justice, but rather a question of whether the taking of the unearned increments by government as a tax will bring greater social gains than if all or part of this increase in land values remains in the hands of private landowners. If society takes all of the unearned increment, it is urged in counter-argument, that society is in honor bound to compensate private landowners for any unearned decrements they may have experienced. Only a few countries have made serious use of a special unearned increment tax; England and Germany are among them. The practical effect, however, of periodic advances in the appraisal of real estate for the property tax is to take some of the unearned increment through the medium of the general property tax.

The single-tax proposal. Perhaps the most ingenious suggestion ever made concerning the raising of public revenue is the "single-tax" proposal to socialize all of the economic rent that is due to the superiority of unimproved land. The single-tax proposal is that the government shall appropriate all of the economic rent of land, it being held that a single tax of this kind would yield revenues large enough to enable the government to abolish all other taxes. Since the plan means socialization of economic rent, it practically means socialization of the land itself, because the value of the land to a private owner is the capitalization of its economic rent. Under the single-tax plan private individuals could still retain title to their land, and might prefer to do so for a variety of reasons, but as far as any money income from the land is concerned one piece of land would be no better than any other.

The single-tax program and movement are inevitably associated with Henry George (1839-1897), their founder and proponent. Henry George, though born and reared in the East, made most of his observations in San Francisco at a time when the numbers and wealth of the population were increasing at a rapid rate and many fortunes were being made through the rapid rise in land values. He

was impressed with the persistence of poverty in spite of increasing wealth. His avowed purpose in writing *Progress and Poverty*, published in 1879, was "to seek the law which associates poverty with progress and increases want with advancing wealth". In this widely read and justly celebrated book he tries to show that this law results from the institution of private property in land, which he believes causes the benefits of progress to accrue to the exclusive advantage of landowners. The simple remedy is the appropriation of the economic rent for the common good through taxation.

To the achievement of this end Henry George directed his passionate eloquence. Master of a moving style, his writings have had a profound influence upon economic thought concerning taxation and landed property, even though the remedy he proposed for the ills of the world has not been generally adopted. Both the spirit and the substance of George's proposal are reflected in the following striking passage taken from the closing pages of *Progress and Poverty*:

In allowing one man to own the land on which and from which other men live, we have made them his bondsmen in a degree which increases as material progress goes on. This is the subtle alchemy that in ways they do not realize is extracting from the masses in every civilized country the fruits of their weary toil; that is instituting a harder and more hopeless slavery in place of that which has been destroyed; that is bringing political despotism out of political freedom, and must soon transmute democratic institutions into anarchy.

It is this that turns the blessings of material progress into a curse. . . . Civilization so based cannot continue. . . .

Though it may take the language of prayer, it is blasphemy that attributes to the inscrutable decrees of Providence the suffering and brutishness that come of poverty; that turns with folded hands to the All-Father and lays on Him the responsibility for the want and crime of our great cities. We degrade the Everlasting. We slander the Just One. A merciful man would have better ordered the world; a just man would crush with his foot such an ulcerous ant-hill! It is not the Almighty, but we who are responsible for the vice and misery that fester amid our civilization. The Creator showers upon us his gifts—more than enough for all. But like swine scrambling for food, we tread them in the mire—tread them in the mire, while we tear and rend each other.

In the very centers of our civilization today are want and suffering enough to make sick at heart whoever does not close his eyes and steel his nerves. Dare we turn to the Creator and ask Him to relieve it? Supposing the prayer were heard, and at the behest with which the universe sprang into being there should glow in the sun a greater power; new virtue fill the air; fresh vigor the soil; that for every blade of grass that now grows two should spring

up, and the seed that now increases fifty fold should increase a hundred fold! Would poverty be abated or want relieved? Manifestly no! Whatever benefit would accrue would be but temporary. The new powers streaming through the material universe could only be utilized through land. And land, being private property, the classes that now monopolize the bounty of the Creator would monopolize all the new bounty. Land owners would alone be benefited. Rents would increase, but wages would still tend to the starvation point.⁶

The case for the single tax. The case for the single tax turns on a number of arguments. The main contention is that economic rent is a social product and therefore society is entitled to it. The effort of individual owners has very little to do with creating economic rent. It is primarily increases in population and wealth, resulting in an increased demand for the products of the land, that bring about an increase in economic rent and accordingly in land values. What society has given, society has a right to take away.

What is more, a tax upon economic rent, though it amounted even to the socialization of the economic rent, would be a burdenless tax. Any old and continuing tax upon land values is discounted at the time of purchase and so is not felt at all by the new owner of the land. If the economic rent of a farm is \$1,200 and there are annual taxes against it of \$300, no prospective buyer could afford to pay more for it than the capitalization of \$900, which is the *net* economic rent. The sum of \$300 represents society's "equity" in the income of the property. To the extent to which the present owners of land allowed for taxes in the capitalized rentals which they paid, the land is already held free from tax burdens. This process could be continued until all of the economic rent has been absorbed by the government. New taxes upon present owners would of course be felt, but ultimately a state of painless extraction of taxes would be established. If economic rent is a true form of "surplus income", the payment of which is not essential to call forth necessary productive functioning as wages, interest, and some forms of profits are, its complete socialization would not affect the creation of want-satisfying goods.

It is further argued that the single tax offers a tax that is incapable

⁶ *Progress and Poverty*, Book X, Chapter V, "The Central Truth". The entire volume is filled with similar rhetorical passages expressing strong feeling and deep conviction.

of evasion and that it would put an end to speculation in land and its inescapable wastes.

There is no question that some of the principles of single-tax theory are sound. The issue really turns on the worth-whileness from a social point of view of maintaining the institution of private property in land, that is, of allowing private individuals to retain the income distinctively imputed to the land. The institution has harsh critics but equally ardent defenders.

Objections to the single tax. Objections to the single-tax program may be classified as ethical, political, and economic. On ethical grounds the opponent of the single tax argues that the program is unjust. It is unjust because it fails to keep faith with persons who have acquired land either through government grant or purchase, in the expectation that the land values created by themselves and their neighbors shall accrue to them. The single-tax plan deprives owners of the income which these lands afford and so, in substance if not in form, deprives them of the land itself. It is unjust because it discriminates against the landowner. If it is admitted that the landowner is the recipient of an unearned increment, so are the owners of certain capital goods. Why should the landowner be singled out for this discriminatory treatment? Why not socialize all production goods instead of merely land? Or why socialize most production goods at all? The single-tax proposal is unjust, it is said, because, while taking all of the unearned increment in land values for state purposes, it fails to make provision for compensating landowners for any unearned decrements which they may have suffered. If the government proposes to take the unearned increment but refuses to compensate for the unearned decrement, is it not playing the old game of "Heads, I win; tails, you lose"?

On political grounds, the opponent of the single tax argues that if public revenues could be obtained from rents without any other form of taxation, it would take away the main incentive of many citizens to participate in government. This would not be in the best interests of democracy. It is also held that the socialization of economic rent would remove from society the large group of landed property-holders who are essential both to the stability and to the progress of political society.

The chief objection to the single-tax proposal that has been urged on economic grounds is that it would not lead to the best use of the land. Private property in land, it is held, leads to care and excellence in management. To own and operate land, as to own a home, means that the owner-operator will express something of his personality in it. Nothing could be better as far as the best care and management of the land are concerned. The single tax would take the kernel of private property in land, leaving only the shell. On the administrative side of the single tax as a fiscal measure, it would be exceedingly difficult, and often insuperably so, to differentiate the value of the bare land from its value as improved land. As a fiscal measure it is also exceedingly doubtful that the single tax could really long remain a *single* tax; the revenues produced would doubtless prove inadequate for the purposes of government. The fighting of wars and depressions cannot be financed in this way. Only when land values are rising and the governmental need of revenue is moderate is there reasonable expectation that some governments would find the tax adequate.

Perhaps the greatest service of the single-tax movement, even though the proposed plan has not been widely adopted, has been educational. It has called attention to the glaring defects of the general property tax and has emphasized the need for a more equitable distribution of the tax burden. But as long as the institution of private property in land is regarded as more useful on economic, social, or any other grounds than public property in all land, and as more promotive of the general welfare, it will be maintained, and the single-tax plan will fail of adoption. This is still the verdict of most peoples throughout the world.

CHAPTER XXII

PROFITS

PROFITS, THE FUNCTIONAL REWARD OF ENTREPRENEURS

Profits are the reward for the successful functioning of entrepreneurs and an inducement for the continuance of such functioning. The entrepreneur is the person, or group of persons, that assumes the risk of the business enterprise. He profits if the business succeeds and loses if the business fails. To distinguish him from the laborer, capitalist, and landowner, he is often spoken of as the active "business man". While these other three claimants to the product of industry are the recipients of incomes which he has contracted to pay, he himself is the recipient of a non-contractual income. He contracts to pay wages; failure to pay them may result in a lien against his property and a court judgment against him. He contracts to pay interest on borrowed funds; failure to pay it may result in suit against him, forfeit of collateral if his loan was supported by collateral security, possible bankruptcy and reorganization of the business. He contracts to pay rent; failure to pay may invite suit and possible surrender of the premises he occupies or even eviction from them. Wages, interest, and rent are contractual incomes. The entrepreneur's failure to pay them gives the injured parties cause for action against him. Failure to pay profits, however, as distributive shares or dividends, if not earned, gives no owner or shareholder any cause for action against the business or its management. Failure to receive profits may prove a grievous disappointment, even a sore injustice, but it is not usually actionable. Risk-taking, which implies the possibility of losses as well as of profits, is the peculiar and distinctive function of the entrepreneur. It is his *raison d'être*. Profits, when earned, are his compensation.

In a sense and to a degree everyone—the laborer, the capitalist as typified by the bondholder, and the landowner—who has risked something on the success or failure of a business enterprise, is an

entrepreneur. All of them are taking risks. But such an extension of the rôle of the entrepreneur would imply giving the term a connotation that it does not generally enjoy. The term "entrepreneur" is usually applied to the capitalist-owner, rather than to those who lend funds to the business or supply services to it. In the successful discharge of his risk-taking function the entrepreneur must make the most of the productive opportunity he sees, must constantly study the future for his business, and must carry the financial risks involved in producing his goods.

Responsibility for the management of the enterprise is inseparable from risk-taking, but management is a function which can to some extent be delegated, and is largely delegated in corporations. The average stockholder of a corporation has practically nothing to do with managing the affairs of the corporation of which he is part owner. He has the right and the duty to vote at the annual meeting for the board of directors, who are directly responsible for the management or the selection of managers. Frequently he is too indifferent to exercise even this vestige of the managerial function. The entrepreneur may properly be identified with the owner of a business enterprise. Every sole proprietor, partner in a partnership, or stockholder in a corporation is an entrepreneur. All expect profits as a reward for their risk-taking function.

THE NATURE AND KINDS OF PROFITS

Profits constitute the residual share of the gross income of a business which goes to the entrepreneur. What is left as a net gain to the entrepreneur after covering all direct costs and imputed claims against the business constitutes his profits. It is measured by the difference between the gross income of a business from whatever source derived and the total outlays or costs properly chargeable against the business.

If profits are the difference between gross income and costs, it is obvious that they may be either a positive or a negative quantity. The annual reports of corporations, and the reports to the States and to the federal government for income tax purposes, give ample evidence of the existence of losses as well as profits.

The following operating statement, showing a profit, may serve to illustrate the items that enter into income and outgo in accounting for an ultimate profit or loss.

AMERICAN WOOLEN COMPANY, INCORPORATED
CONSOLIDATED PROFIT AND LOSS STATEMENT

	Year Ended December 31, 1933
Profit from Operations before inventory reductions, depreciation, etc.	\$9,823,158.72
OTHER INCOME AND CREDITS:	
Interest earned	\$328,281.30
Discount on purchases	145,439.12
Rentals, storage charges and sundry income—net	139,924.00
Collection on accounts, previously written off	15,542.38
TOTAL	\$629,186.80
PROFIT BEFORE OTHER CHARGES, INVENTORY REDUCTIONS AND DEPRECIATION	\$10,452,345.52
OTHER CHARGES:	
Provision for doubtful accounts	\$154,584.74
Loss on fixed assets sold or scrapped	181,568.50
Interest on mortgage and notes payable	95,022.16
Pensions	22,513.96
TOTAL	\$453,689.36
PROFIT BEFORE INVENTORY REDUCTIONS AND DEPRECIATION ..	\$9,998,656.16
Net reduction in inventories to cost or market basis	199,104.15
PROFIT BEFORE DEPRECIATION	\$9,799,552.01
Provision for depreciation	1,816,132.40
PROFIT FOR YEAR	\$7,983,419.61
Amount written off sundry investments	None
Provision for Federal Income Tax	930,331.72
PROFIT FOR THE YEAR	\$7,053,087.89

Some differences of opinion exist as to what are properly chargeable costs against the income of a business. Direct outlays for materials and supplies, wages, interest on loans, contract rent, and similar explicit payments are easily recognized as costs. But if the entrepreneur is active in the management of his business, what part of his annual net return, which he is apt to call profits, is really his wage of management? Whether one works for others or works in one's own business, wages are the proper term to designate payment for the services rendered. What part of the return to an entrepreneur is logically interest on his investment and what part is

real profits? Whether capital is lent to others or employed in one's own business, it is expected to earn interest. Shall mere interest on invested capital then, and the wages of management, if they can be separately determined, be treated as costs? This is a knotty question. Logically the answer must be in the affirmative, which gives us a much narrower concept of profits than the one currently entertained.

Differentiation of wages of management from profits. If an entrepreneur is actively engaged in the work of his business enterprise, directing and managing its activities, he is entitled to wages of management just as certainly as he would be if he were selling his services to someone else. If it pleases him to include such returns under profits (and apparently many business men persist in calling them profits), that is understandable. Logically, however, there is little difference between wages of management and any other service income. If the entrepreneurs of a business enterprise are obliged to hire an outsider as manager, the manager's salary would unhesitatingly be entered as an expense of operation. Is it any less so when the entrepreneur functions as manager himself? Wages of management cannot properly be considered a residual income; they are a payment for necessary functioning in production. The methods of modern corporations which hire their managerial executives, the practice of cost accounting in distributing costs, and the reporting of net income for taxation purposes after allowing for total business costs have all served to emphasize wages of management as business costs rather than as residual profits.

In some business enterprises the wages of management are actually contractual payments; this is the prevailing practice of corporations. The stockholders who are entrepreneurs, but not actively concerned with management, receive no wages of management. No part of their dividend checks can be earmarked as such wages. In other businesses, however, it usually happens that the entrepreneur's wage is an allotment or allowance out of the gross income of the business which may be both uncertain and irregular. It is unlike wages or salaries in that it may not be definitely fixed in advance. In calculating "entrepreneurial" wages it is often necessary to estimate what salary the entrepreneur could command if he were rendering similar managerial services to some business other than his own.

There is a market for managerial ability no less than for other types of labor. If he can command an annual salary of \$5,000, for example, in a comparable position, this sum may serve as a guide in determining what is a proper charge for managing his own business. Many entrepreneurs, however, who manage their own enterprises are willing, for a time at least, to accept lower wages of management than they could secure as employees, because they prefer the greater independence which they enjoy in being their own "bosses".

Segregation of imputed interest and rent from profits. If an entrepreneur borrows capital for his business enterprise, he must pay loan interest for it. If he leases the premises he uses, he expects to pay contract rent for them. Both the loan interest and contract rent are direct outlays of the business which must be covered by its gross income. If we assume that the entrepreneur, be he farmer, merchant, or manufacturer, is able to supply all of his own capital and land, and thus pays neither loan interest nor contract rent, does the absence of such explicit payments mean a proportional increase in profits? There is no convincing reason for thinking so. The mere fact that in this case the interest and rent are imputed returns rather than contractual payments does not really alter the logic of the situation. The entrepreneur is entitled to interest on his capital invested in his own enterprise just as much as if he had lent his capital to someone else. If he owns the land he uses in his business enterprise, he is warranted in regarding some of his gross income as economic rent. Although these returns accrue to the owner in the form of imputed interest and rent, they are nevertheless business costs properly chargeable against the enterprise, if all economic costs be taken into consideration.

To be sure, imputed interest and rent are mingled with profits, and for some business men are hopelessly mixed. This is due to the fact that entrepreneurs must supply much of the capital for business, just as they must provide much of the management. Without a substantial capital investment in a business by the entrepreneurs, the business would have no credit standing. It could borrow neither long-term capital nor short-term funds. Because the entrepreneur so frequently functions not only as risk-taker, but also as capitalist, landowner, and manager of the enterprise, it is not sur-

prising that profits, interest, rent, and "entrepreneurial" wages are all commingled in a single ownership return. From a functional point of view, however, this ownership return is not a single return. It consists of a number of components, which it is the task of economic analysis to distinguish. The "entrepreneurial" wage is compensation for the discharge of the managerial function. Imputed interest is a return allowed at the current rate of interest on the invested capital; imputed rent is a return on that part of the capital investment which has taken the form of land. Only what is left is profits in the narrower sense of the term, sometimes called *pure profits*. These are the distinctive compensation for risk-taking in production.

Identification of pure profits. If after meeting all of the direct and explicit obligations of the business, and if after allowing for wages of management, imputed interest on the invested capital, and imputed rent, if any, there is a residual product, such product constitutes true or pure profits. Pure profit is a much less inclusive concept of profits than that commonly entertained, but it has the advantage of identifying profits as a distinctly functional return for the discharge of the socially necessary function of risk-taking. If men are to risk their capital in business enterprise in the hope of a highly uncertain return, this return must be larger than it would have to be if it were definite and assured. Unless there are at least the possibility and the reasonable expectation that the rewards will be greater than ordinary interest on the invested capital and wages of management for services rendered, men will lack financial incentive to become entrepreneurs. The individual must see the chance of making profits in a given line of business if he is to run the risk and take up the burdens of being an entrepreneur. Without such stimulus and reward he might better lend his money to the government or to some other borrower for a definitely stipulated return and engage to work for someone else at a salary than to assume the risks and responsibilities of business enterprise. Of course if there were no opportunity for anyone to make profits and hence no one wanted either his capital or his services, the situation would be different. In this event, however, the profits system would have disappeared and a different form of economic organization would

prevail. The system of private enterprise presupposes the possibility of making profits as an inducement for the taking of business risks.

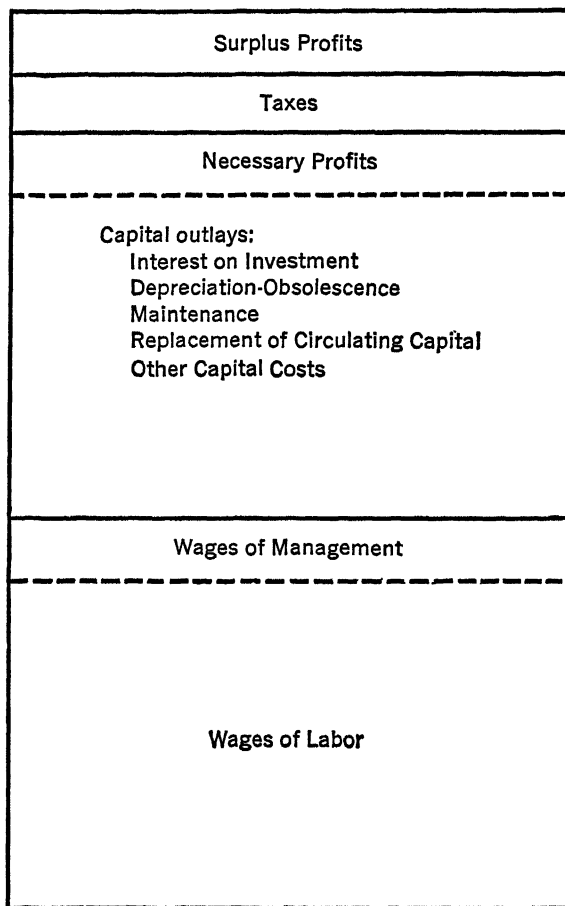
Pure profits are necessary profits to the extent that they are returns required to attract capital investments into business enterprise—to induce men to assume the risks essential to production. There may also be surplus profits, which are returns beyond what is strictly essential to call forth the necessary risk-taking function in production. Surplus profits constitute an extra prize which entrepreneurs seek. Ownership of such profits is often contested by other agents, and in any fiscal emergency of government these profits are apt to invite heavy taxation by the state. If a return of 2 per cent in excess of the current interest rate, which may be assumed to be 5 per cent, is just sufficient to attract adequate amounts of new capital into a given kind of business enterprise, then the return of 2 per cent constitutes necessary profits, and anything beyond a total of 7 per cent is surplus profits. The sources and disposition of both necessary and surplus profits will be considered later.

Gross profits versus pure profits. Since wages of management, imputed rent, interest on the invested capital owned by the entrepreneurs, and pure profits all go or accrue to the entrepreneur who is active in his business, it is often convenient to refer to the totality of this ownership return by a single term. For this purpose the term "gross profits" is most usable, with the added advantage of a certain historical continuity in the meaning of the term. The classical economists from Adam Smith to John Stuart Mill considered profits the residual income accruing to the managing owner. It was natural to do so, for in the days of these economists joint-stock companies were rare and corporations relatively unknown. Consequently, profits were the income of the capitalist, though such income usually included interest, a payment for risk and an allowance for management.¹ This usage persists among many business men. Pure profits, however, not gross profits, are the distinctive reward for risk-taking.

¹ Cf. John Stuart Mill, *Principles of Political Economy*, edited by W. J. Ashley (London: Longmans, Green, and Co., Ltd., 1920), p. 406. He says: "The gross profits from capital, the gains returned to those who supply the funds for production, must suffice for these three purposes. They must afford a sufficient equivalent for abstinence, indemnity for risk, and remuneration for the labour and skill required for superintendence."

RELATION OF PROFITS TO OTHER DISTRIBUTIVE SHARES

The relation of profits to the other outlays of a business and the distributive shares represented in its product may be illustrated by the accompanying diagram. The entire bar diagram represents the



total value of the product of a business during an accounting period such as a year. It is meant to show qualitative, not quantitative, relations. To represent the latter it would have to be drawn to a precise scale in accordance with the value produced and the outlays made by a particular business during a given year. The question here

is, what becomes of the value-product created, and why is it distributed as it is? A substantial part of the value produced by this business must be used to cover labor costs, including both the wages of labor and the wages of management. A further substantial part is required for capital costs of all sorts. These capital outlays and charges include interest on the invested capital, whether in the form of loan interest or imputed interest, and contract rent or imputed rent as the case may be. They represent a return on the investment at the current rate of interest. But there are other capital costs and charges, which must be covered by the income from operations, before there can be any possibility of profits. These include depreciation and obsolescence; capital goods are constantly wearing out and sometimes become obsolete even before they are worn out. Then there are maintenance charges to be met, replacements of circulating capital, such as raw materials, to be made, and still other capital costs, such as insurance and losses, to be covered. Still another inescapable outlay is taxes, which may be looked upon as a payment for the services of the state. Over and above these direct outlays and costs, chargeable against the operations of a business, are profits or losses. Some of these profits are necessary to induce entrepreneurs to assume the risk-taking function and others are surplus gains beyond that which is strictly essential to call forth and reward their risk-taking.

In the diagram the gross income or value-product of the business is represented by the entire area. Gross profits, as the term is commonly used, include wages of management, interest on the owner's share of the investment, and necessary and surplus profits. Profits in the narrower sense include the areas marked necessary and surplus profits, the residual income after meeting all direct costs and providing for all imputed returns.

THE SOURCES OF PROFITS

It has been said that some profits, over and above the ordinary rate of interest on invested capital, are necessary as an inducement and reward for the discharge of the socially necessary function of risk-taking. Since risk-taking is the essence of business enterprise,

private business is largely motivated by profits. If this is true, the sources and probable permanence of pure profits are important subjects of inquiry.

Differential gains. One important source of profits for the more successful entrepreneurs in every field of production may be called "differential gains". These are due to exceptional "entrepreneurial" ability or to exceptional business opportunities which the entrepreneur is quick to seize. Unusually successful business men know how to reduce unit costs below those of their competitors or to increase the volume of their business so as to reap larger returns. They know how to bargain advantageously for labor, capital, and land. They not only buy goods of all sorts needed in their business but also sell their products more shrewdly than their competitors. They are quick to develop and to use to their own advantage any new ideas in their field of business enterprise, and to profit from successful innovations. They reap differential gains over their less fortunate competitors which are analogous to the differential return known as economic rent.

Successful methods of business, however, beget imitation. The differential gains of the more successful entrepreneurs are continually in jeopardy as competition becomes more effective. Whether such entrepreneurs can maintain their positions of leadership or not depends upon their versatility in keeping "one jump ahead of their competitors".

It may be argued that differential gains which are due to exceptional "entrepreneurial" ability tend to be absorbed in the wages of management and thus leave nothing for distribution to the owners of the enterprise, if the latter are not active in its management. Many businesses, however, particularly corporations, enter into contractual agreements for the wages of management. While wages of management are not set without reference to such differential gains, the latter are not completely absorbed by the former. The good showing of superior management is due not only to exceptional executive ability but also to the resources at the disposal of the management, and these are provided by the business. The assets of a business provide the leverage for management.

Chance gains. In certain years and for particular enterprises

Dame Fortune may be credited with a not inconsiderable part of the pure profits of business. Many conspicuously successful business men are quick to admit that some of their greatest financial successes have been "lucky strikes". Chance gains result from circumstances and forces entirely beyond the powers of the individual entrepreneur. Practically all that he does is to take advantage of the "break" that comes to him.

Perhaps the most conspicuous example of chance gains that the present generation has seen is furnished by the so-called "war profits" made during the World War. Industries in both belligerent and neutral countries that were in a position immediately to supply the munitions and materials of war profited enormously. In this instance what was fortune for some was misfortune for others. A great drought such as that which visited the United States in 1934 brought chance gains to the vendors of food supplies who had anything to sell. A lucky discovery of gold or oil, a new invention, a fortunate turn in the market—these are coveted and often realized chance gains in many enterprises.

Gains from changes in the price level. Closely related to chance gains are the gains (and of course losses, too) that arise from changes in the general level of prices. When the trend of commodity prices is upward, profits grow because of the mark-up of goods already produced and the tendency of operating costs to lag behind the advance in prices. This is the situation during the prosperity phase of what is known as the business cycle. Since the selling prices of goods increase more rapidly than the costs of producing them, business men make extra profits on their sales. During the recession and depression phases of the business cycle, on the other hand, when there is a fall in commodity prices without a corresponding fall in operating costs, losses appear.

Gains from imperfect competition and monopoly. Much of the pure profit of business arises from imperfect competition and a condition of partial or complete monopoly. Competition is a great leveler of prices. If it were perfectly effective and uncertainty could be removed, pure profits would disappear, because both prices and costs would be uniform in any given field of production. But competition is far from perfect. Some producers are subject to little or no

effective competition. In consequence the spread between prices and costs may be increased, which results in larger profits. In the different fields of productive enterprise conditions vary all the way from intense competition on the one hand to monopoly on the other, with many gradations of imperfect competition between these extremes. Whenever any degree of monopoly exists, the opportunity for making profits is enhanced. The monopolist, however, who is intent upon increasing his profits does not set his price arbitrarily. He is guided by the law of monopoly price.² If he were to set a very high price upon each unit of product, his unit profits would be high, but if the demand for his product is at all elastic his total profits may be very much lower than if he should set a lower price. It is to the monopolist's own interest to set a price that will yield him the highest net profits. While there are few complete monopolies (and these are usually either socialized or socially controlled), elements of monopoly are much more widespread in our economic system than commonly supposed. Monopoly gains of all degrees are an important source of profits.

The permanence of pure profits. Pure profits are the least stable of all the returns for functioning in production. They are also the least definite. There is no principle for measuring profits comparable to productivity in determining wages or to time-preference in determining interest. Profits are a residual return. If all the other returns—wages, interest, and contract rent—are determined in accordance with established principles, profits can properly be treated as a residual return. Profits are not only unstable and indefinite, they are also highly irregular. As far as profits are concerned many businesses are in the "prince or pauper class"—they make handsome profits in certain years and none at all in others.

High profits in any line of productive enterprise are sure to invite vigorous competition. Competition works relentlessly to pull down the level of profits and to reduce to a minimum the spread between selling prices and costs. As business grows more stable and economic society more static, the possibility of making profits is greatly restricted. But no such condition of static equilibrium has yet been reached as to preclude the possibility of profits. Differences

² Cf. Chapter XVIII, "Value and Price", pp. 477-481.

in "entrepreneurial" ability persist. Chance gains have not been eliminated; inventions and innovations, and sudden changes in the demand or failure of important sources of the supply, are still with us. The price structure is never perfectly adjusted. Competition continues imperfect, and degrees of monopoly exist. So the quest for profits remains.

THE DISPOSITION OF PROFITS

Necessary profits. The possibility of obtaining profits furnishes powerful motivation for business enterprise. Not many persons would care to assume the risks of business with all its uncertainties of outcome and irregularities of income except in the hope and expectation of making profits. Entrepreneurs engage in business because they are attracted by the prospect of profits for risks which they assume and successfully carry. Since risk-taking is essential to getting production under way, and because most of it is irksome, profits are necessary to induce entrepreneurs to assume the socially essential risk-taking function. The entrepreneur is the primary shock-absorber of the industrial system. He is and ought to be the first to feel the impact of the rapidly changing forces of the business world. The prospect of making profits larger than ordinary interest on invested capital prompts men to initiate business enterprises of their own and to carry the risks involved. In this sense, and to the degree required to attract "entrepreneurial" ability and capital, profits are necessary. From the point of view of society as a whole they may be regarded as a reward allowed for the discharge of the risk-taking function.

When it is said that profits are necessary, does this mean that an individual business cannot and will not be conducted unless profits are forthcoming? This is not a fair deduction. But there must be the possibility of winning the prize of profits. Many will contest for the prizes of business even though they know that not all will win them. It is the anticipation of profits that prompts and stimulates risk-taking. Whether an individual entrepreneur will continue in business if he never realizes them is at least open to question and doubt. He would do better if he lent his capital and sold his services

to others, and thus substituted a more certain income for the uncertainties of business enterprise. Whatever may be true of individual entrepreneurs, profits must, under a productive system which leaves the assumption of risk-taking to private enterprise, be obtainable for entrepreneurs as a whole. To the extent that entrepreneurs, whose activities are essential to meet the demand for their products, will decline to function except as over a period of years they realize pure profits, such profits must be considered a necessary cost of production.

Surplus profits. But this is not to affirm that all profits are necessary. The prizes may be larger than needed to stimulate and reward the risk-taking function. Such profits may be properly designated as surplus profits. The surplus profits of a particular year, however, may be partly or wholly counterbalanced by the losses of some other year. Whether in a given industry over a period of years there is an excess of surplus profits over losses sustained is a hotly contested issue upon which we ought to have more conclusive evidence than is furnished by much of the available data. Be that as it may, the emergence of surplus profits at any time invites the imposition of both regular income taxes and taxes on surplus profits. During the period of the World War, for example, the United States government for a time taxed what it called "excess profits". Again under the Revenue Act of 1935 a special excess-profits tax was reinstated. The law provides for an excess-profits tax at the rate of 6 per cent on such portion of the net income of a corporation as is in excess of 10 per cent and not in excess of 15 per cent of the declared value of the capital stock, and 12 per cent on such portion of its net income as exceeds 15 per cent of the declared value of the capital stock. To the extent that surplus profits are a true form of surplus, they may be taxed 100 per cent without affecting the basic functioning of the economic system.

Profits as a reward for success in socially necessary risk-taking are associated with a system of private initiative and enterprise. The most important questions concerning profits are not questions as to the amount of profits, their necessity, or their taxation, but rather questions as to how the powerful profit-seeking motive can be controlled and guided in the social interest.

CHAPTER XXIII

GENERAL PRICE CHANGES

MEANING OF CHANGING PRICE LEVELS

Throughout the preceding analysis of what determines prices, including commodity and service prices, wage rates, loan interest rates, and contract rents, no question was raised concerning the purchasing power of the money in terms of which prices are expressed. It was tentatively assumed that this was constant. This assumption, however, is contrary to fact. The purchasing power of money, that is, its command over other goods, is subject to considerable variation, and sometimes records wide fluctuations. The monetary unit in terms of which all prices are expressed has its value, determined by the same sort of interaction of forces that sets all other values. Since a given amount of money, such as the dollar, constitutes the unit of value, any changes in its value are recorded in the prices of all other goods. When the dollar becomes more valuable, it buys more of other goods, which means that their prices, expressed in dollars, fall. On the other hand, when the dollar becomes less valuable, its command over other goods is less, which is expressed in higher dollar prices for these goods.

The unit of value, such as the dollar, which measures all other exchange values, may itself change in value, whether it be a unit of gold, of some other metal, or of paper. What its value will be depends upon the interplay of all the forces affecting the demand for money and its supply. In all cases, however, changes in the value of money register in changes in the general level of prices.

The general level of prices measures the value of money—its power of exchange. The value of money and the general price level are two aspects of the same fact: the exchange ratio of money and goods. The higher the price level, the lower is the purchasing power of money and vice versa.

To arrive at the concept of a "general level of prices" it is necessary to compare the money prices of a wide selection of goods at a given time with the money prices of these same goods at some other time. These changes in the value relationship of goods and money are expressed by percentages called index numbers, in the construction of which the prices of some year or other period of time are taken as a base and considered as 100.

MEASUREMENT OF PRICE CHANGES BY INDEX NUMBERS

If variations in the price of a single commodity are to be studied, an index number is unnecessary. If anthracite coal, for example, sells for \$12 per ton in a given year and some years later the price has advanced to \$15 per ton, a direct comparison between the two prices indicates that there has been an increase of 25 per cent in the price of anthracite coal. But the prices of other commodities may not all have moved in the same direction nor to the same extent. Some prices may have advanced more than 25 per cent and some less. The prices of some commodities may show little change, and it is possible that the prices of others may actually have fallen. In order conveniently to measure variations in the prices of many goods, index numbers are essential. In an exceedingly compact way they tell the story of the general changes in prices that have occurred.

To construct an index number of prices it is first of all necessary to decide what prices are to be studied. If it is the price of food, only the prices of foodstuffs need be collected. If it is the cost of living, then not only the retail prices of representative foodstuffs, but also the prices of clothing, housing, fuel and light, and sundries of many kinds, must be assembled. If it is to show certain trends of business activity, wholesale commodity prices may be preferred. Since it is impracticable to collect the prices of all commodities for the area under investigation, a list of representative commodities must be selected and their prices at key places ascertained from time to time. Perhaps the best-known index number of prices in the United States is that of the United States Bureau of Labor Statistics. It is based on the wholesale prices of 784 com-

modities regularly reported from cities all over the United States. Prices of these commodities in 1926 are taken as the base of 100.

Index numbers of the arithmetic average type. After representative price data on the selected commodities have been assembled and tabulated, the important task is the calculation of averages and index numbers which will correctly indicate the price changes that have occurred. The following table of average wholesale prices of fifteen foodstuffs, as compiled by the United States Bureau of Labor Statistics, may be of use in illustrating the method of computing an index number. The prices quoted for each commodity are average prices prevailing during 1926 and 1934.

AVERAGE WHOLESALE PRICES AND INDEX NUMBERS OF SELECTED COMMODITIES, 1926 AND 1934 ¹ (1926 = 100)				
<i>Commodity</i>	<i>1926 Aver- age Price</i>	<i>1934 Aver- age Price</i>	<i>1926 Base Price</i>	<i>1934 Rel- ative Price</i>
Milk, fluid, per qt.	\$.063	\$.048	100.0	76.2
Eggs, per doz.	.335	.219	100.0	65.4
Butter, per lb.	.429	.248	100.0	57.8
Bread, per lb. loaf	.075	.066	100.0	88.0
Rice, per lb.	.062	.040	100.0	64.5
Beef, per lb.	.164	.114	100.0	69.5
Lamb, per lb.	.262	.140	100.0	53.4
Bacon, per lb.	.304	.168	100.0	55.3
Coffee, per lb.	.182	.098	100.0	53.8
Lard, per lb.	.150	.083	100.0	55.3
Pepper, per lb.	.256	.110	100.0	43.0
Sugar, per lb.	.055	.044	100.0	80.0
Vinegar, per gal.	.186	.175	100.0	94.1
Tea, per lb.	.355	.204	100.0	57.5
Apples, evaporated, per lb.	.118	.110	100.0	93.2

If the price of each of these commodities in 1926 is taken as the base or 100 per cent, the prices of these same commodities in 1934 may be expressed as relative prices or percentages calculated on the

¹ United States Bureau of Labor Statistics, *Wholesale Prices, 1913 to 1928*, Bulletin No. 493, pp. 53, 58, 69, 74, 75, 78, 80, 85, 89, 90, 95, for 1926 prices; United States Bureau of Labor Statistics, *Wholesale Prices*, December, 1934, pp. 11-14 for 1934 prices. The price data of the above table are chiefly for New York and Chicago.

1926 base. The results are indicated in the last column of the table. It is apparent that there has been a decline in the prices of all these commodities, although the percentage of decline has been much sharper in some cases than in others. To get a composite picture of the change, index numbers are constructed. One way of constructing an index number is to take a *simple arithmetical average* of the relative prices, which, calculated from the figures of the table, is 67.1. If this be accepted as a correct gauge of the course of food prices, it means that there has been a drop of almost 33 per cent from 1926 to 1934.

But such an index number of changes in the price of food has decided limitations. In the first place, its reliability is questionable because it is based upon only fifteen commodities. A much wider range of commodities would enhance the trustworthiness of the index number. Secondly, the simple arithmetical average assigns the same importance to each commodity in the representative list. Expenditures for pepper and vinegar, however, do not actually rank as equal in importance to expenditures for bread and milk, either in absolute volume or in the significance of these commodities to the ultimate consumer. If the price of pepper were to rise 500 per cent, its rise in price could still be borne with equanimity, since no family spends very much for pepper. A sharp advance in the price of milk, on the other hand, is quickly felt, since all families use it and expenditures for milk represent a substantial percentage of their annual food budgets. To correct the error of the equal treatment of unequally important items, a *weighted arithmetical average* may be substituted for the simple arithmetical average. In the construction of such an index number each commodity is given a weight in accordance with its relative importance in the total expenditures during a period of time. Thus if the expenditures for milk are ten times as large as those for whatever commodity is used as the base of comparison, the relative price of milk (76.9) is counted ten times while that of the other commodity is counted only once in arriving at the weighted arithmetical average. The relative prices of the fourth column of the table must be multiplied by the weight assigned each commodity. The sum of these weighted relative prices divided by the sum of the weights

then gives the weighted arithmetical average, which constitutes the index number.²

Index numbers of the aggregative type. Instead of calculating either a simple or weighted arithmetical average of the relative prices of a series of commodities as a means of getting an index number, it is also possible to use simple or weighted sums of actual prices. Such index numbers are known as the simple or weighted aggregative type. One sum or aggregate may be expressed as a percentage of the other taken as a base. Calculations made from the first two columns of the table show that in 1926 it cost \$2.996 to buy the fifteen commodities in the quantities indicated, while in 1934 the total cost was only \$1.867. If the unweighted 1934 sum is expressed as a percentage of the 1926 sum taken as the base, the percentage or index number is 62.3. If the commodities are weighted in accordance with their relative significance as determined by expenditures for them during a given period, such as the base year or any other year which is regarded as a fair sample, the index number will be correspondingly more reliable. This is accomplished by multiplying the prices paid for each unit of a commodity by the number of units purchased during the course of a period of time, such as a year. The widely used wholesale price index numbers of the United States Bureau of Labor Statistics are

² There are other averages or types than the arithmetic average which may be used in the construction of index numbers. Two of the most familiar of these are the median and the mode. They have their distinctive uses and for some purposes are better than the arithmetic average. The *median* is the item in a consecutively arranged series of items which divides the distribution of items into two equal parts. It is only slightly affected by the extreme items in the array which may represent a sharp variation from the ordinary run of items. The median is a highly useful type or average for some purposes, such as wage studies and studies of the distribution of income and of wealth. To say that in 1929 the median American family had an income of \$1,700, which means that there were as many families with incomes of over \$1,700 as there were families with incomes less than this amount, is one way of graphically describing the distribution of the income of the American people.

Another common average or type is the *mode*. It is the most frequently occurring item in a series. The mode eliminates extreme variations completely. Indeed, in calculating the mode, it is not even necessary to know precisely what the extreme items are; it suffices to know that they are few in number. To say that the modal wage of a group of workingmen is \$5 per day, which means that there are more workers in this group getting \$5 per day than there are getting any other rate, seems to many persons the fairest way of describing the distribution of wages.

weighted sums of actual prices. The prices of any month or year are expressed as a percentage of the prices obtaining in 1926, which is made the base year.

The index numbers, and equivalent purchasing power of the dollar at wholesale, from 1885 to 1935, as compiled by the United States Bureau of Labor Statistics, are given in the accompanying table. The figures expressing the purchasing power of the dollar illustrate the usefulness of index numbers; they are merely reciprocals of the index numbers. Since the index number for 1932, for example, is given as 64.8, the dollar of 1932 compared with the dollar of 1926 had a purchasing power of \$1.543. ($1.00 \div .648 = \1.543.)

INDEX NUMBERS AND EQUIVALENT PURCHASING POWER OF THE DOLLAR AT WHOLESALE, 1885 TO 1935 ³		
<i>Year</i>	<i>Index Numbers</i> 1926 = 100	<i>Purchasing Power</i> <i>of the Dollar</i> 1926 = \$1.000
1885	56.6	\$1.767
1886	56.0	1.786
1887	56.4	1.773
1888	57.4	1.742
1889	57.4	1.742
1890	56.2	1.779
1891	55.8	1.792
1892	52.2	1.916
1893	53.4	1.873
1894	47.9	2.088
1895	48.8	2.049
1896	46.5	2.151
1897	46.6	2.146
1898	48.5	2.062
1899	52.2	1.916
1900	56.1	1.783
1901	55.3	1.808
1902	58.9	1.698
1903	59.6	1.678
1904	59.7	1.675
1905	60.1	1.664
1906	61.8	1.618

³ United States Bureau of Labor Statistics, *Wholesale Prices*, Serial No. R. 278 (Washington, 1935), p. 8. Index number for 1935 taken from United States Bureau of Labor Statistics, *Wholesale Prices*, Serial No. R. 342 (Washington, 1935), p. 10.

GENERAL PRICE CHANGES

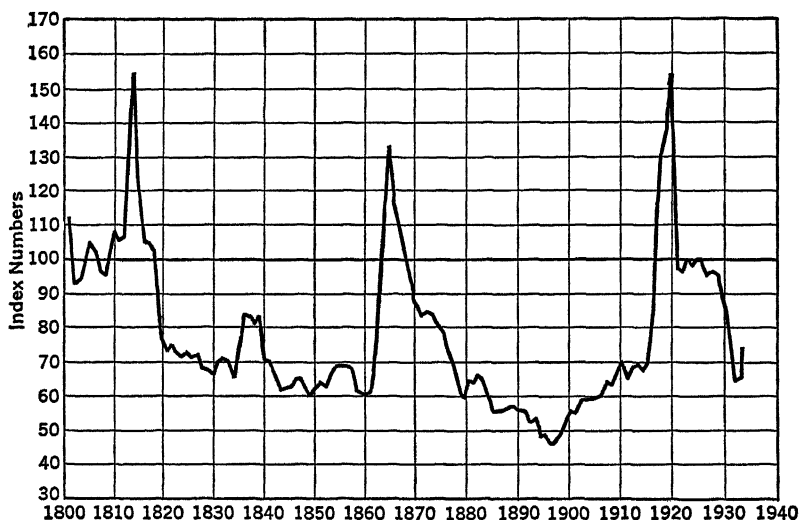
599

1907	65.2	1.534
1908	62.9	1.590
1909	67.6	1.479
1910	70.4	1.420
1911	64.9	1.541
1912	69.1	1.447
1913	69.8	1.433
1914	68.1	1.468
1915	69.5	1.439
1916	85.5	1.170
1917	117.5	.851
1918	131.3	.762
1919	138.6	.722
1920	154.4	.648
1921	97.6	1.025
1922	96.7	1.034
1923	100.6	.994
1924	98.1	1.019
1925	103.5	.966
1926	100.0	1.000
1927	95.4	1.048
1928	96.7	1.034
1929	95.3	1.049
1930	86.4	1.157
1931	73.0	1.370
1932	64.8	1.543
1933	65.9	1.517
1934	74.9	1.335
1935	80.0	1.250

The table shows that the low point of prices during this fifty-year period was reached in 1896 (46.5) when the purchasing power of the dollar stood at \$2.151 compared with \$1.00 of purchasing power in 1926. From 1896 on to 1920 the general trend of prices was upward, although there were minor recessions in 1901, 1908, 1911, and 1914. The big downward turn, however, began in 1920, and by 1921 prices declined to an index of 97.6, which showed a decrease of over 36 per cent from the average prevailing in 1920. This sharp recession was followed by a period of eight to nine years when prices were comparatively stable at a level approximately one-third lower than the average reached during the peak year of 1920. The next sharp break in prices came after the financial crash of 1929; prices reached their lowest yearly average for

this depression period in 1932, since when there has been a marked advance.

The course of wholesale prices as measured by index numbers is most clearly and strikingly shown in graphic form. The accompanying chart traces the course of wholesale prices in the United States from 1801 to 1934, with prices in 1926 taken as the base of 100. The peaks and valleys in price movements are readily apparent. It is instructive to observe that the three major price peaks occurred during and after the periods of great war disturbances—the Napoleonic wars in Europe including the American War of 1812, the Civil War, and the World War.



WHOLESALE PRICES IN THE UNITED STATES, 1801-1934

(Prepared by Nathan L. Silverstein, Department of Economics, University of Wisconsin. For data from 1801 to 1931, cf. United States Bureau of Labor Statistics, *Wholesale Prices, 1931*, Bulletin 572, p. 14; for data from 1931 to 1934, cf. monthly bulletins on *Wholesale Prices* issued by United States Bureau of Labor Statistics.)

EVILS IN RAPID CHANGES IN THE PRICE LEVEL

Changes in the general level of prices are always disturbing to someone. Rapid changes which allow no time for adjustments are

particularly distressing, since they upset calculations and cause hardships to individuals and to business enterprises.

Slowness of fixed incomes in responding to price changes. One evil inherent in rapid upward price changes is the inertia of fixed incomes, which fail to respond to such changes in the price level. It is a well-known fact that generally wage changes lag behind price changes. It takes time for the ordinary bargaining processes to effect a change in wages. The prices of individual commodities can be advanced much more quickly. In consequence, periods of rapidly rising commodity prices are always times during which there is much complaint about the high cost of living. Persons whose living depends on other forms of fixed income, such as interest on investments, pensions, and annuities, are affected in precisely the same way as are wage-earners and salaried workers. The dollars of income of all these groups command less and less of want-satisfying goods as prices move upward.

It would seem that the recipients of fixed incomes should have an offsetting advantage when prices fall. They do have such advantage provided their incomes continue unchanged. Such advantage, however, is apt to prove short-lived. Falling prices cause uneasiness concerning the future of productive enterprise, slow up its tempo, and result in unemployment with loss of income. If the depressing effects are severe, many enterprises may not be able to pay their fixed obligations, which not only impairs the income of bondholders, or other holders of such obligations, but may jeopardize their investment as well.

Shrinkage or impairment of the value of savings. One of the greatest hardships incidental to rapid changes in the general level of prices is either shrinkage in the value of savings or impairment of the safety of such savings. For a quarter of a century (1896-1920), the general trend of prices was upward in the United States. If a person had invested \$10,000 at the beginning of the period and had allowed it to accumulate interest at 3 per cent per annum, at the end of a quarter-century of self-denial, during all of which neither interest nor any part of the principal was used for current expenditures, he would have accumulated about \$20,000. His savings from 1896 to 1920 would have doubled in the number of dollars to

which he was entitled. But at the same time the general level of prices more than trebled.⁴ What he could have bought in 1920 with his original principal plus all the accumulated interest was much less than he might have purchased with the savings of \$10,000 he had accumulated in 1896. Periods of rising prices affect adversely the holders of endowment funds, such as colleges, universities, and philanthropic foundations; the owners of savings accounts; and the holders of maturing insurance policies. The value of fixed income-yielding investments shrinks during periods of rising prices.

Although there should be compensating gains during periods of falling prices, and there frequently are, the risk in such times is that debtors will not be able to meet their obligations, which impairs the security of investments and frequently their safety as well.

A number of striking estimates have been made of the effects of rising price levels upon the value of accumulated savings. For the period beginning in 1914 and culminating in 1920 in the highest known price level since Civil War days, Willford I. King says with reference to the situation in the United States:

A moderate estimate would be to assume that dollars, since 1914, have lost 55 per cent of their purchasing power at that date. The debts owed by individuals and corporations to others than banks amounted in 1914 to not less than 30 billions of dollars. The effect of the currency inflation, which has consisted principally of increase in dollar efficiency, has been to confiscate some 16 billions of dollars' worth of the property of the creditors (at 1914 prices), and turn it over to the debtors as a gift. Sundry other billions have been transferred from the payrolls to the bank accounts of employers; and the owners in 1914 of the 22 billions of bank deposits and money have found their ability to buy goods reduced by over one half, or by about 12 billions, but this loss is partly cancelled by the gains of the borrowing depositors. A moderate estimate, however, of the value of the property which has thus been transferred without any value given in return is 25 billions of dollars at the 1914 price level or 60 billions at the price level of 1920.⁵

Irving Fisher provides an estimate for the period 1896-1920 which covers wider territory. He says: "The total unjust shift of income and principal (assuming the present high price level to

⁴ The index number for 1896 is 46.5, as shown in the table on p. 598 of this book, and 154.4 for 1920.

⁵ "Circulating Credit: Its Nature and Relation to the Public Welfare", *American Economic Review*, X (1920), 746.

continue) from shrinkage of dollars, pounds, francs, and other monetary yardsticks since 1896, doubtless exceeds a hundred billion dollars, half or more being during the war. Almost every year untold billions of dollars' worth of social injustice is endured."⁶

Of course the high price level of 1920 did not continue, but its precipitous fall could not correct the unjust transfers of purchasing power that had already been experienced, nor could it prevent a new series of injustices which arose out of the rapidly falling prices.

Disturbance of long-time contracts. Still another hardship occasioned by changes in the general level of prices is the disturbance of long-time contracts—contracts reckoned in years rather than in shorter periods of time. Such contracts usually call for the payment of specified sums of money. The number of dollars, for example, specified in the obligation must be paid regardless of the purchasing power of the dollar. Any marked change in the price level and the purchasing power of the dollar is bound to affect unfavorably either the debtor or the creditor who are parties to a long-time contract. Under a rapidly rising price level the debtor gains, because he pays back dollars of much smaller purchasing power than he had originally borrowed. The creditor, while receiving the same number of dollars as the sum he lent, must accept dollars of lesser purchasing power. On the other hand, during a period of rapidly falling prices the debtor loses, because he pays back (if he is able to pay) dollars of larger purchasing power than he had originally borrowed. The creditor gains correspondingly.

Periods of falling prices are apt to be periods of great political and social unrest. In American history the protest of the debtor groups has been particularly marked during times of pronounced falling prices and has taken concrete expression in various cheap-money movements.

Inertia of rates fixed by government. Among the more inflexible prices, whether the general price level is advancing or receding, are prices fixed by custom or government. Such prices are apt to change slowly, simply because they require collective action. In the case of the public utilities, whose rates are controlled by

⁶ *Stabilizing the Dollar* (New York: The Macmillan Company, 1920), p. 63.

State or federal commissions, public opinion is usually set against an advance in rates even when prices are rising. Public commissions are naturally cautious and slow in revising rates upward. Consequently, public service enterprises may find themselves caught in the vise of relatively fixed income and rapidly mounting operating costs. In times of falling prices the relative inflexibility of such rates, along with some others, tends to retard the rate at which a new balanced price structure can be established.

The human hardships and the economic, political, and social disturbances caused by sharp fluctuations in the price level are so overwhelming that they have stimulated deep and constant study of the causes of changes in the general level of prices, and of the possible means of stabilizing prices.

THE EQUATION OF EXCHANGE AS AN APPROACH TO THE PROBLEM OF PRICE CHANGES

Perhaps the simplest and easiest approach to the problem of what causes changes in the general level of prices is through what is known as the "equation of exchange". Every exchange transaction results in a simple equation of exchange, such as the purchase of a pair of shoes for \$8. In this case there is an equality between the price of one pair of shoes and \$8. Similarly, all of a person's purchases within a year might be expressed in an equation of exchange; the sum of the money or credit payments would constitute one member of the equation, and the sum of the prices of all the goods bought would constitute the other. More significant and useful still is an equation of exchange which summarizes for an entire people, such as the people of the United States, the equation involved in all the individual exchanges made during the course of a year. Such an equation has a money side and a goods side. This equation of exchange expresses the fact that the total amount paid for goods during a period of time equals the sum of the prices of all the units purchased. As such the equation of exchange is a truism—it requires no demonstration. But it is nevertheless most useful in analyzing the forces that work upon the price level. Just as the law of demand and supply is the most convenient approach

to the explanation of market prices of all sorts, so the equation of exchange is the most convenient approach to a study of the interacting and interdependent forces that effect changes in the general level of prices.

The most familiar form of the equation of exchange, expressed in algebraic terms, is that developed and popularized by Irving Fisher. It reads: $MV + M'V' = PT$. In this equation, M equals the average quantity of money, including both metallic and paper money, in circulation during the course of a year. V represents the velocity of circulation of money, which means the number of times the total supply of money turns over during the course of a year in facilitating trade. If the velocity of circulation of money happens to be twenty, only one-twentieth as much money is required as if its velocity were one. The rapid turnover of money increases the efficiency of its use. M' stands for the average quantity of money substitutes, or the rights to receive money, in circulation during the course of a year. It consists almost wholly of bank deposits subject to check. Actually, the "deposit-dollar", as represented by M' , directly facilitates much more trade than the "currency dollar", represented by M . V' denotes the velocity of circulation of bank deposits, the number of times on the average that the deposit-dollar does duty in exchange transactions during the course of a year. P represents the average price paid for all units of goods acquired in exchange transactions, and T denotes the total number of units of goods so exchanged, or as it is commonly called, the volume of trade.

If the algebraic symbols are translated into their meanings, the equation of exchange may be expressed as follows: the average quantity of money in circulation, multiplied by its velocity of circulation, plus the average quantity of bank deposits subject to check, multiplied by their rate of turnover, equal the average unit price paid for goods multiplied by the volume of trade. Obviously, the amount of money payments for goods plus payments through the transfer of bank deposits must equal the total value of all the goods acquired in exchange. Since it is the effects of other factors upon P that concern us most in accounting for changes in the general level of prices, the equation by simple transposition may

be written as follows: $P = \frac{MV + M'V'}{T}$. The equation indicates that prices vary directly with the quantity of money and of money substitutes, together with their respective velocities of circulation, and inversely with the volume of trade. Useful as the equation of exchange is in setting forth certain relationships, it offers no causal explanation of price changes.

CAUSES OF CHANGES IN THE GENERAL LEVEL OF PRICES

Changes in the prices of single commodities may be fully explained by conditions affecting the demand for and the supply of these commodities. But changes in the prices of commodities as a whole, that is, changes in the general level of prices, cannot as a rule be so explained. Such changes mean that there has been a change in the value of money, its purchasing power over other goods.

Quantity theory of money. The most celebrated of the theories emphasizing changes in the value of money, as causes of changes in the general level of prices, is the so-called "quantity theory of money". Economists accepting it in one form or another (and they constitute the great majority) regard the quantity of money in circulation as the most important price-determining factor in the equation of exchange. Changes in the money supply, according to this theory, are the real causes of changes in the price level. It is held that prices in the long run rise or fall in direct proportion to changes in the quantity of money, rising with increases and falling with decreases in the quantity of money. As far as the other factors in the equation of exchange are concerned, the theory assumes that the velocity of circulation (V) is fairly constant at any particular stage of economic development; that the quantity of bank credit (M'), under existing banking laws and practice with reference to cash reserves, directly depends upon the quantity of money (M) and bears a constant ratio to it; and that the volume of trade (T), like the velocity of circulation of money, changes only slowly. It is the quantity of money, then, together with the quantity of bank credit, which chiefly controls the general level of prices and determines the value of money.

If a question is raised as to how an increase in the supply of money and credit would operate to increase the general level of prices, the answer is that more money and credit would mean more lively spending, and, with a greater demand for goods without a greater supply, prices would inevitably rise. If every person in a country found that he suddenly had twice as many cash-dollars and deposit-dollars as he had before, the first thought of many would be concerned with the goods for which this extra purchasing power should be spent. If people were inclined to hoard this extra purchasing power, it would of course have no effect upon the price level. But more money in circulation would mean more lively trade and higher prices.

Let us suppose that the amount of money in circulation in the United States amounts to five billions of dollars, that the bank deposits subject to check amount to forty billions, and that the rate of turnover of each is twenty times per year. Under the assumptions made a total of 900 billions of dollars is offered in exchange for goods. If we further assume that 900 billions of units of goods are purchased during the year, it follows that the average price per unit must be \$1. If the number of dollars now is suddenly doubled, and all other factors in the equation of exchange remain the same, prices must rise to twice their former level. If the supply of dollars is suddenly reduced by one half, under the same assumed conditions, prices must fall to one half of their former level.

Assumptions of the quantity theory of money. One major assumption of the quantity theory of the value of money is that the substance of which money is made is irrelevant in explaining general price changes; that it is chiefly the number of money units that counts. This does not mean that the quantity theory is inapplicable when a commodity such as gold, which is valuable in the industrial arts, is used as money. It merely means that the quantity theory in accounting for price changes puts the emphasis upon the number of units of purchasing power in circulation, whether they be gold or other metallic units, paper money units either based upon gold or unsupported by gold, or credit units represented by bank deposits. The quantity theory ascribes no im-

portance as an explanation of price changes to the commodity use of gold in the industrial arts.

On this point the quantity theory clashes sharply with the so-called "commodity theory of money", which stresses changes in the demand for and supply of gold as a commodity of use in the industrial arts in accounting for changes in the general level of prices. For gold (which was the almost universal standard money commodity) there is both a non-monetary and a monetary demand, each of which affects its value; there are also material changes in the supply of gold from time to time, as a result of new gold discoveries or changes in costs affecting the profitability of gold-mining. Changes in the value of gold, however brought about, affect the general level of prices. The quantity theory of money of course does not deny that changes in the monetary use of gold effect changes in the price level; it merely denies that the value of gold as a commodity of use is of any real importance in explaining changes in the general level of prices under present conditions. Such industrial or commodity use of gold may have served very well to explain price changes in the past, when the industrial arts absorbed a much larger part of the gold supply than they do today. But when the monetary use of gold predominates, for reserves if not for circulation, the commodity theory of money offers too simple an explanation of changes in the price level.

A second assumption of the quantity theory, but one which it seeks to establish as its main contention, is that the causal sequence in the equation of exchange runs from changes in the quantity of money and credit to changes in the price level. The general level of prices is regarded as passive, the result of changes in other factors. There is nothing in the equation of exchange, however, to prevent one from drawing the conclusion that the causal sequence may run in the other direction; that price changes may cause and necessitate changes in the quantity of money and credit.

The quantity theory of money further assumes that the quantity of money and credit (M and M') on the one side, and the volume of trade (T) on the other, act primarily upon prices (P) rather than that they spend their force in acting upon each other. It is of course entirely possible that an increase in the quantity of money

may simply lead to increased output and volume of trade without an increase of prices at all.

Still another assumption implicit in the quantity theory is that the velocity of circulation (V and V') of both money and credit remains about the same, since spending habits change rather slowly.

The foregoing assumptions and contentions of the quantity theory are further examined in the discussion that follows, the argument of which is that not merely the quantity of money but every other element in the equation of exchange must be considered in accounting for changes in the general level of prices.

Price changes affected by every element in the equation of exchange. Price changes are so complicated, and there are so many interdependent forces at work upon prices both at any given time and over periods of time, that it seems futile to try to explain them in terms of a single factor, no matter how important and even preponderant this factor may be. Not merely the quantity of money, but every other element in the equation of exchange, must be taken into consideration in accounting for changes in the price level.

That there is a distinct and direct correlation in the long run between prices (P) and the quantity of money and credit (M and M') is generally admitted. There is no escape from the fact that the prices buyers can offer for goods ultimately depend upon the number of cash-dollars and credit-dollars at their disposal. With an increase in the circulating medium and no offsetting changes in other terms of the equation of exchange, prices in the long run must rise. Similarly, with a decrease in the circulating medium and no counteracting changes elsewhere, prices in the long run must fall.

Monetary history offers many instances which seem to confirm this conclusion concerning the long-time relation of money, credit, and prices. Sharp increases in gold-production, in the quantity of paper money, or in the volume of bank deposits subject to check, when any one or all of them increased faster than the volume of production or trade, have been accompanied by a rise in the price level. In the United States, for example, for a score of years after the Civil War, the volume of physical production increased stead-

ily, while at the same time the world's annual output of gold decreased. The result was a fall in prices. Thereafter the production of gold increased, the increase becoming particularly marked after 1896. New gold-fields were discovered, particularly in Alaska and South Africa, and the development of the cyanide process of refining gold made it possible to extract gold from ores which it had not been economical to use before. By the outbreak of the World War the world's annual production of gold was about three times as great as it had been just prior to 1896. Monetary stocks and gold reserves increased. Prices rose; examination of the table of index numbers of wholesale prices in the United States shows an increase from 1896 to 1914 of nearly 50 per cent.⁷ Continued large outputs of gold since 1914 and the concentration of a much larger percentage of the world's gold supplies in the United States, together with an increased volume of credit built upon them, helped to carry prices to a peak in 1920, when they stood at a level two and one-quarter times as high as that of 1913.

The most striking demonstration of the effect upon prices of huge issues of paper money is furnished by the post-war inflation of the currencies which occurred in various European countries, most notably in Russia and Germany.⁸ With a rate of increase in the currency much greater than the rate of increase in the output of goods, prices inevitably rose. Ultimately, in the case of both Russia and Germany, the magnitudes of the paper money issues and of the resulting price levels had to be expressed in astronomical terms. When the worthless paper money issues were finally swept aside and new currencies established in their stead, prices fell to more customary, earthly levels.

The expansion of bank credit, if it reaches the inflationary stage of increasing faster than the increase in the output of goods, has a lifting effect upon the price level. Increases in the volume of outstanding credit, most economists agree, were an important contributing cause in carrying prices of commodities, real estate, and securities to the levels which they reached in 1920.

⁷ The index number for 1896 is 46.5 and for 1914, 68.1.

⁸ For some of the more important facts concerning these experiences with currency inflation, cf. pp. 277-279.

Although in the long run there is a direct relation between prices and the quantity of the circulating medium, changes in the quantity of money and credit seem of little significance for the short term. At times an abundance of money and credit neither prevents a fall of prices nor effects a rise. Quantity of the circulating medium is not always the controlling element in the situation. Benjamin M. Anderson, Jr., economist of the Chase National Bank of New York, who is a sharp critic of the quantity theory, points out:

Between May of 1920 and December of 1924 the volume of monetary gold in the United States increased 73% and the net demand deposits of reporting member banks increased 14%. Commodity prices at wholesale, however, dropped 37% during this period. Is it not proper to ask by how much we should have needed to increase our gold supply and our bank deposits, and by what possible machinery we could have made these increases, in order to have had in December of 1924 the same prices that we had in May of 1920? ⁹

Dr. Anderson does not believe that a simple formula and single principle can satisfactorily cover all the complicated forces which affect the general level of prices.

The difficulty with the quantity theory for the short term is that the assumption "other things being equal" does not hold. When other things than money in the equation of exchange change, a rigid quantity theory of the value of money is inapplicable. The theory is only offered as an explanation of prices in the long run, "other things being equal".

That changes in the velocity of circulation of money and credit affect the general level of prices becomes most apparent under certain unusual economic conditions. When there is lack of confidence in the business outlook, but no suspicion concerning the integrity of a country's currency or of its banking solidity, the velocity of circulation declines. Economic motives to speed it up are lacking. Under such conditions mere increases in the quantity of money or of credit seem to have no effect upon the price level, which tends to sag. But if people lose confidence in their cash-dollars and deposit-dollars, the velocity of circulation rises sharply,

⁹ "The Gold Standard Versus a Managed Currency", *The Chase Economic Bulletin*, V, No. 1 (March, 1925), pp. 8-9.

and prices tend to rise. Under such circumstances the buying public wants to convert money into goods.

Unfortunately, no accurate and continuous data concerning the velocity of circulation of money are available. A velocity of circulation of twenty-five times per year has been estimated for the United States. The velocity of circulation of bank deposits, on the other hand, has been carefully studied since 1919 for selected reporting member banks of the federal reserve banking system. For 140 leading cities outside New York, bank deposits subject to check in reporting member banks of the federal reserve system were being turned over at the annual rate of about 25.3 in December, 1935. The lowest rate of turnover was reached in August, 1935, when the velocity of circulation was at the annual rate of 19.6. The peak was reached in October, 1929, when the velocity of circulation was at the rate of 46.5 per year. Turnover in New York City averaged 25.6 in December, 1935; it reached its lowest rate, 21.2, in August, 1935; and it recorded its peak of 137.7 in October, 1929, the month that witnessed the frantic buying and selling of securities that characterized the stock market crash.¹⁰

Such wide variations in the velocities of circulation of bank deposits, since the transfer of bank deposits facilitates 90 per cent of the exchange transactions of the country, cannot avoid affecting the general level of prices. Changes in the velocity of circulation may accentuate or reduce the effect of changes in the quantity of money or credit.

It must also be recognized that changes in the price level itself, however they may be brought about initially, affect further changes in prices. Prices are by no means wholly passive, as the quantity theory assumes. At times they are very active. The psychology of people, convinced that prices are rising and will continue to rise, usually brings about a further increase of prices. Price changes may for a time be self-generating. At times they are causes rather than results. The causal sequence may run from price changes to increases in the circulating medium and in the velocity of circulation rather than in the opposite direction. Psychological factors, generated by rising or falling prices themselves, cannot be safely dismissed in accounting for changes in the general level of prices.

¹⁰ Data reported in the *Wall Street Journal*, January 18, 1936.

Finally, changes in the volume of trade, that is, changes in the demand for and supply of goods, may have a decisive effect upon the price level. One of the principal causes for rapidly soaring prices in the United States in the period after the World War was the fury of extravagant buying that developed. Pent-up desires for luxuries and other non-essentials were suddenly released. High prices did not seem to cause buyers to refrain from buying. High prices were accepted as a matter of course, and the additional buying tended further to accentuate them. The increased volume of trade itself brought about changes in the volume of bank deposits through loans, and also changes in the quantity of currency necessary to carry on the increased volume of trade.

The quantity theory of money at best is a partial explanation of changes in the price level—true in the long run, “other things being equal”. Changes in the quantity of money and credit are a cause but not the sole cause of changes in the general level of prices, because other things do not remain equal. Every factor in the equation of exchange is of causal importance. The different elements in the equation of exchange are constantly interacting and interdependent. The quantity of money (M) and prices (P) are two variables which act and react upon each other, and both influence outside factors and are affected by them. The quantity of money and credit, their respective velocities of circulation, the anticipated price level itself, and the volume of trade, all in constant interaction, and subject to many and sometimes rapid changes, help to create the price level of a given time and place.¹¹

¹¹ Consideration of possible means of stabilizing the price level is taken up at the close of the next chapter dealing with business cycles. Cf. pp. 634–638.

CHAPTER XXIV

BUSINESS CYCLES

THE RECURRENCE OF BUSINESS CYCLES

That business has its "ups" and "downs", its alternating periods of prosperity and depression, is a fact which generations now living and old enough to understand are not apt soon to forget. For never in the 150 years of modern industrialism has a business upheaval been so sudden and severe in the shocks we have been called upon to absorb, so prostrating in its effects upon business life and human hopes, so pervasive of all industries and all countries, as the devastating depression which struck the world about a decade after the close of the World War. The stock market crash of 1929, which ushered in the depression in the United States, shook the entire nation and had its repercussions throughout the world, even though it was more the occasion than the cause of our economic collapse. Values melted away so that at the low point of this depression the aggregate value of the common stocks listed on the New York Stock Exchange was only about one-sixth as great as it had been at its peak in 1929. Wholesale commodity prices ultimately broke through their 1913 levels, which represented a drop of approximately 40 per cent. The volume of industrial production shrank to one half of what is regarded as normal. Fifteen million persons were out of work—nearly one third of those normally gainfully employed in this country. Billions of dollars were spent by the federal government alone upon relief. Five million families, one sixth of our population, became dependent upon public support. Thousands of banks failed, and all banks practically ceased functioning for nearly a fortnight. The gold standard was suspended, and the gold content of the dollar, unchanged for a century, was reduced to 59 per cent of its former weight. The debt of the United States government rose to the highest amount in its history, more than thirty-one billions of dollars, to which State

and local debts added twenty billions more. As if not to be outdone by all this man-made havoc, Nature lifted billions of tons of topsoil into the air and redistributed it where it was not needed all the way from the Rocky Mountains to the Atlantic seaboard. These are some of the features of the great depression of the thirties which have been etched on the memories of all who observed or experienced them.

To those inclined to look upon this severe and widespread post-war depression as unique, the following passage may be of interest.

It is a gloomy moment in history. Not for many years—not in the lifetime of most men who read this paper—has there been so much grave and deep apprehension; never has the future seemed so incalculable as at this time. In our own country there is universal commercial prostration and panic and thousands of our poorest fellow-citizens are turned out against the approaching winter without employment, and without the prospect of employment.

In France the political caldron seethes and bubbles with uncertainty; Russia hangs as usual like a cloud, dark and silent upon the horizon of Europe; while all the energies, resources, and influences of the British Empire are sorely tried, and are yet to be tried more sorely, in coping with the vast and deadly Indian insurrection, and with disturbed relations in China.

Of our own troubles (in America) no man can see the end. If we are only to lose money and by painful poverty to be taught wisdom, no man need seriously despair. Yet the very haste to be rich, which is the occasion of this widespread calamity, has also tended to destroy the moral forces with which we are to resist and subdue the calamity!

Although an amazingly realistic description of the international economic situation of the nineteen-thirties, the quotation is from *Harper's Weekly* of October 10, 1857, and describes the depression of seventy-five years ago.

Perhaps it is of little comfort to know that other generations suffered from depressions, dark and dreary; but the fact that other generations have also had their economic tragedies, and although seemingly crushed have risen again to greater economic heights, is a matter of real significance.

American economic history records a long series of alternating periods of prosperity and depression, some of them short-lived and minor in their effects, and others protracted and most severe in their consequences. There was the economic disorganization following the Napoleonic wars, for example—the depression of the eighteen-

twenties. Our most recent depression has very frequently been compared with this because both depressions occurred about ten years after the close of wars involving many nations, and both were most extensive and severe in the disturbances they caused.

Although the world recovered completely from the depression of the eighteen-twenties, we in the United States were soon plunged into another depression. It was the dismal panic of 1837. It came in the wake of a period of rapid credit inflation and of fantastic land speculation. It took the country six years to recover. During this time every bank in the country, except some in New England, failed. It was not a case of a short bank holiday, but of actual insolvency. Nine out of every ten factories in all the Eastern States were closed. Many States repudiated their debts. People began to despair of the future of the Republic.

Twenty years later came the crash of 1857 described in the passage quoted from *Harper's Weekly*. Severe as was the depression, the country again recovered, only to face the terrible Civil War with its aftermath of political reconstruction and economic depression.

The depression of the seventies was the major corrective of the dislocations effected by the Civil War. Like the depression of the thirties it lasted for six years—from 1873 to 1879. In this period more than eighty railroads went into receivership and almost the entire steel industry was shut down. Banks and business houses failed by the thousands.

The nineties found us in another severe depression. Prices were low and money was dear. Men were idle everywhere. Armies of the unemployed marched on Washington. The burden of debt was intolerable, and the air was filled with the anguished cries of ruined debtors. The gold standard was blamed for our economic woes. Agriculture, industry, and trade all were prostrate. But after four years of suffering the country rose and began a quarter-century of economic progress without parallel in our history.

Not until the primary post-war crash in 1920 was our prosperity seriously interrupted. Then commodity prices fell sharply. With five or six millions of persons unemployed, with agriculture and industry out of gear, and with business everywhere stagnant, the Jeremiahs of economic gloom prophesied that a decade would elapse before the

dawn of another day of prosperity. And yet within two years the country began the orgy of expansion and speculation that reached its climax in the stock market crash of 1929, and the beginning of what in the perspective of time may be regarded as the most severe and prolonged depression in our history.

This brief allusion to some of the major economic disturbances in the history of the American people supports the statement that there is something recurrent about the disturbances that affect modern business enterprise.

THE COURSE OF A BUSINESS CYCLE

The ups and downs of business are of various kinds. Perhaps the most familiar are the *seasonal* variations. Since the spring and fall months, in most parts of the United States, usher in the periods of greatest change in the activities of people, they are usually the months in which the greatest volume of business is done. The summer and winter months are periods during which business as a whole is not so active, although for special enterprises, such as those that conduct summer or winter resorts, it may be more active. Certain holiday periods, particularly the Christmas season, represent well-known seasonal business peaks.

Variations of a different sort are occasioned by the so-called *secular* trend in business. This is a long-time movement. When it is due to growth in population and wealth, the secular trend is upward. Under other conditions the long-time trend of business activity may be downward or unchanged. The secular trend in the United States has been upward because the country was new, population growing, wealth increasing, and the technique of production improving.

In contrast to both the seasonal variations and the secular trend of business is the *cyclical* movement of business. The course of business seems to be characterized by alternating periods of prosperity and depression. These swings of business above and below the secular trend are cyclical because they are recurrent. Doubtless no two cycles are alike either in duration or in the amplitude of their swings. There is sufficient similarity, however, to warrant the statement that business moves in cycles. A business cycle has four distinct phases or

movements: the period of prosperity, the period of the crisis and recession, the period of depression, and the period of recovery.

The period of prosperity. In tracing the course of a typical business cycle it is well to remind ourselves that production in modern economic society is highly specialized, that it is characteristically based on the extensive use of credit, and that in consequence of both these facts there is an economic interdependence among producers which accentuates every period of prosperity and also of depression. Specialized production on a large scale is possible because a marvelously intricate exchange system has been built up, including swift communication, rapid transportation, highly organized markets, and the universal use of money and credit. But at the same time this very exchange system created by men to extend the scope of their economic activities has greatly intensified their economic interdependence. Agriculture, industry, transportation, trade, finance, and other productive enterprises are today all interdependent. If any one of them fails to function in harmony with all the rest, the economic system may be seriously disrupted. Although it is true that temporarily some industries can prosper while others are depressed, the greatest prosperity of any industry depends upon the prosperity of all.

What we call prosperity, then, is a state of balanced production, even though the balance is never perfect, in which there is a fairly ready market for the goods of producers and no clogging of the markets with unsalable surpluses. The balance is never so perfect that all producers, the inefficient as well as the efficient, can dispose of their goods to advantage. But in times of greatest prosperity there is a steady movement of goods from producers to consumers without the development of unmanageable surpluses. When the goods of many scattered producers are brought to market so that the supply of each good approximately equals the demand, the market is said to clear itself through the establishment of an equilibrium between supply and demand. Under such conditions the production of goods intended for the market is said to be in balance, productive effort is wisely applied, employment is general, and prosperity is widely diffused. Conversely, when consumption and production are not in equilibrium, largely as the result of lack of balance among specializing producers with consequent loss of purchasing power to many

people, we experience the throes of depression. If every economic community still produced what it consumed and consumed what it produced, there would be perfect balance in our economic life and we should have no depressions. One of the most striking and significant facts about modern economic society, however, is that we have all chosen to specialize in our productive efforts rather than try to be self-sufficing. The specialized production of important groups and sections of our population must be kept in balance if prices that justify continued production and make for prosperity are to prevail.

With the various parts of our economic system in reasonably good balance as far as productive output is concerned, an active demand for goods of all sorts develops. This is the more likely because in previous periods of economic adversity many desires for goods had to go ungratified. Buying is restored as productive efforts are brought into balance again after a period of depression. The purchasing power of most of us comes from creating commodities or rendering services which other people want, and for which they, in turn, have something of value to offer in exchange. Successful production, not money, is the ultimate source of purchasing power; it creates the income which makes consumption possible. As business improves, as employment becomes more general, and as more money goes into wages and other business disbursements, prices are apt to rise. The rise may be sporadic at first, but it soon becomes widespread, and ultimately fairly general. An increased demand for goods and rising prices usually mean larger profits because operating costs tend to lag behind the advancing prices. Some operating costs rise quickly, such as the increased prices of raw materials. Others are "pegged" for the time being, such as interest rates on long-term obligations and contract rentals. Still others respond slowly, such as wages, because it takes time to effect new bargains. With an increase both in the margin of profits per unit of output and the aggregate volume of profits, the outlook for business is most promising. With an alluring prospect before them, business men are encouraged to make fresh commitments: new equipment is bought, old plants are modernized, and expansion of productive facilities is undertaken. Easy credit conditions at the beginning of the period of prosperity stimulate the expansion. Business optimism prevails, and since this is contagious it soon comes to

characterize the entire business community. Business men face the future with confidence.

The constant risk in the prosperity phase of the business cycle is that business will over-reach itself; that new commitments will out-run the prospective earnings which must sanction and sustain them. Stresses begin to accumulate, which ultimately reach the breaking points. Chief among these is the rise in operating costs, which at first lagged behind advancing prices except in the case of raw materials. When old rental and interest contracts expire, they can only be renewed at higher rates. Wages advance as new bargains are made, stimulated by the rise in the cost of living. Since rising costs cannot be passed on to consumers indefinitely, because of the failure of the purchasing power of some consumers and the passive or active resistance of others, the margin of profits grows narrower, and the prospect for profit-making becomes decidedly more drab. Maladjustments of several kinds develop and are apt to progress. Production and consumption get out of gear. The equilibrium of prices among various commodity groups, such as that between farm products and all other commodities, is upset. If the prices of farm products break more sharply than the prices of other goods, for example, it means that farmers must sell at relatively low prices and buy at high, which is impossible for any great length of time. Maladjustment between income and fixed charges, which develops as net business earnings decline, makes it impossible for many borrowers to meet their obligations promptly. Such failures have sharp repercussions throughout the financial system. Banking institutions, which have previously extended loans to businesses, find their reserves reduced and are forced to curtail further lending and to contract the volume of outstanding credit. The cumulative effect of such stresses and maladjustments, whatever their underlying cause or causes may be, is to bring the period of prosperity to a close through a crisis in the upward movement of prices and the course of business.

The period of the crisis and recession. The period of the crisis marks the culmination of an upward price movement. At some stage in the period of prosperity apprehensiveness develops among business men as to whether prices can continue to climb or even to hold the heights they have reached. This introduces an element of hesi-

tancy into further business commitments. For those who have pressing financial obligations to meet, this uncertainty may lead to some liquidation of inventories regardless of the prices that can be obtained. Once the break in commodity prices has occurred, it precipitates a general though uneven retreat of prices along the entire line, which may develop into a disastrous rout in some price sectors.

Consumers reduce their purchases because their supplies of goods are replenished, or because their own purchasing power is impaired, or because they fear that prices may fall still lower and they do not wish to buy at the existing higher prices. Producers curtail all but the most necessary purchases of producers' goods because the outlook for profit-making is so discouraging. At the same time that the demand for both consumers' goods and producers' goods declines, the market supply of goods is increased as a result of the liquidation of inventories which enables business men to meet their obligations and to put their businesses into less precarious positions. The liquidation of high-priced goods by manufacturers and merchants usually begins in the great business centers and finally spreads to Middletown and Gopher Prairie.

The fall of prices may be so rapid as to impair or destroy the credit of many. Banks refuse to extend credit and demand the liquidation of existing loans. Numerous businesses fail to survive the crisis, and others perish in the hard times of the depression that follows. Sometimes an economic crisis may develop into a panic, which consists of a frightened scramble on the part of people to convert commodities or securities or bank deposits into cash in order to meet their obligations or to strengthen their financial positions.

The period of depression. Just as the crisis in a severe illness is apt to be followed by a period of prostration, so a severe economic crisis is usually followed by a period of business depression. Falling prices and the liquidation of credits continue during the period of depression, but not at the rapid rate that characterized the relatively short period of the crisis. The period of depression may be of short duration or may stretch into years. Economic conditions are in striking contrast to what they were during the earlier period of prosperity. Instead of a brisk demand for goods of all kinds, the demand is sluggish. Large and important groups either lack purchasing power

or are exceedingly cautious in spending what they have because they fear that the downward price movement has not yet worn itself out. The general complaint is that business is dull. While operating costs fall, they do not fall as rapidly as the wholesale prices of consumers' and producers' goods. Profits either contract or are replaced by operating deficits. Credit is tight because of uneasiness concerning all values and the prospect for earnings. Most industrial plants run on a part-time basis. Some are forced to shut down completely. Marginal plants are abandoned. There is no expansion of business. Unemployment is widespread. The period of depression is a time during which business and productive enterprises in general are compelled to "clean house". A new adjustment between prices and costs, a new level of prices both wholesale and retail, and a new alignment of prices among various commodity groups are all in the making.

In the early part of a depression period, the way to recovery is the hard road of liquidation and a realignment of prices. Whenever fictitious values have been built up in the boom period of the business cycle, liquidation and a fall in prices must occur. There is no escape. There must be liquidation of high-cost inventories, productive capacity must be brought into closer alignment with present and prospective needs, top-heavy capital structures must be written down, the quality of outstanding credits, old and new, must be improved, and a new alignment of prices at a lower level must be established. Such changes are painful and prolonged in execution. When the prices of most commodities and services have been readjusted in a new equilibrium, so that the products of interdependent industries can again be profitably exchanged, the stage is all set for a forward movement provided a substantial stimulus develops.

The period of recovery. What furnishes the necessary and proper stimulus is a question the answer to which is still shrouded in much uncertainty. As a result of the readjustments of many kinds made during the periods of recession and depression, business recovery is possible. Knowledge that basic economic conditions are again sound is essential to the generation of that confidence in the future without which there can be no real or widespread recovery. When prices not only stop falling but show signs of stability or of rising again, the psychology of buyers and sellers changes. How soon the recovery

movement will broaden into another period of prosperity it is impossible to predict. The stimulus to renewed activity may be provided both by expected conditions and unexpected developments.

There are at least four important ways in which business has revived in the past and doubtless will recover in the future. One time-honored way in which business at least partially revives is through the need of making replacements. During every depression people defer what buying they can either because their own purchasing power is impaired, or because they fear prices may fall still lower. Consequently, a potential demand for all sorts of replacements steadily accumulates and ultimately becomes effective, because fortunately in every depression the greater part of the stream of purchasing power does not dry up. Buying of goods for more or less immediate consumption can be curtailed or postponed for a time, but not indefinitely. Replacement buying starts with consumers' goods. When it reaches the durable or capital-goods industries, it is an indication that the depression is over.

A second possibility of business revival after a depression is sometimes presented by an unforeseen event such as the unexpected outbreak of war or large-scale crop failures in some parts of the world. American recovery from the depressions of the seventies and of the nineties was accelerated by crop failures in other parts of the world, which increased the purchasing power of the American farmer. There is no doubt that the World War brought to a sudden halt the incipient depression of 1914 through Europe's intense demand for war supplies. The great drought of 1934 gave evidence of what nature can do in crop restriction. Our wheat crop, for example, proved the smallest American crop since 1890 and fell short by 200,000,000 bushels of meeting our recent domestic needs for all purposes. While it brought a sharp rise in the cost of living it also increased the farmers' aggregate purchasing power and ultimately stimulated business.

A third way in which a people at times extricates itself from a depression is through the development of a new industry producing a commodity or service of widespread use. The railroads after the depression of the seventies and the motor industry in more recent years provided much of the necessary stimulus for business. Business men and economists have long been anxiously scanning the eco-

nomie horizon for the appearance of some commanding new industry, but so far largely have been looking in vain. Air-conditioning, the creation of a sort of artificial climate, has great possibilities. Television, which may bring the theater and opera into millions of homes, is almost here. Cheap electric energy and artificial sunlight promise to revolutionize and expand many human activities.

Finally, government action may furnish the impetus for the revival of business. There are those who now believe that business is no longer a "self-starter", that it must be "cranked" by government. Certain it is that the government by stimulating demand through public works and relief expenditures, and by restricting the supply through agricultural and industrial control measures, can powerfully accelerate or retard the rate of economic recovery, depending upon the quality of management shown. Upon the proper timing of the governmental program so as to harmonize with and reinforce the natural forces working for economic recovery, its success or failure largely turns. The economic justification of public works as a means of restoring prosperity is commonly set forth by saying that public works are meant to prime the engines of private enterprise. If the priming operations represented by the outlays of government funds are successful, private enterprise can again furnish the opportunities for employment and public works can cease. But if the priming operations are not well timed, or the available priming fluid gives out, or the engine itself is broken, no amount of priming will reestablish normal business enterprise.

THEORIES OF THE BUSINESS CYCLE

Just as some of the ablest research workers in the fields of biology and medicine have long sought to discover and to isolate the cause of the common cold, cancer, and other diseases that have so far eluded explanation by man, so some of the world's ablest economists have long tried to furnish a causal explanation of business cycles. The hope is that if investigators can discover the causes of these afflictions it will also be possible to perfect remedies and control-measures. Perhaps the search for a single general cause of business cycles is useless. Perhaps business cycles have multiple causes, rather than a single

cause, since no two cycles present exactly the same pattern. It seems certain that many of the theories proposed are partial explanations at most, and some of them are complementary rather than mutually exclusive. Some of the outstanding attempts to explain the business cycle are set forth in the discussion that follows.

Attempts to explain business cycles in terms of weather and climate. Exceedingly interesting attempts have been made to show a correlation between business cycles and meteorological phenomena. During the last quarter of the nineteenth century the English economist, W. S. Jevons, developed his celebrated sun-spot theory of the periodicity of commercial crises. When the so-called "spots" appear, covering a larger part of the sun's surface, conditions of weather and climate are affected on the earth, particularly through variations in rainfall and the growth of crops. The abundance or failure of crops causes periods of prosperity or depression because of the dependence of all phases of economic activity upon agriculture. It was Jevons' thesis, based upon a study of the records for about 150 years, that the average time interval between the appearance of the sun-spots and the time interval between commercial crises in England were about the same—between ten and eleven years. Unfortunately, average time intervals do not establish regular periodicity. Subsequent investigations also established a longer time interval between the appearance of sun-spots and a much shorter period for the business cycle than Jevons assumed.

In the United States Professor Henry L. Moore has continued the investigation of weather cycles. From rainfall data he sought to establish the existence of an eight-year cycle in the weather which he contended affected crops, prices of agricultural produce, and so business conditions in general. Like Jevons he looked to the heavens for an explanation of this weather and rainfall cycle. Moore attributed it to the fact that every eight years the planet Venus moves into the direct path of radiations from the sun to the earth, which in some way affects solar radiations, and consequently weather on the earth. The theory is a striking but unproved hypothesis. There may well be some correlation between climatic changes and business cycles, but a dominating causal sequence has yet to be proved.

Business cycles and changes in business psychology. While

some economists look to natural phenomena for an explanation of the cyclical course of business, others turn to the psychology of business men. The outcome of business ventures is clouded in much uncertainty. Yet business plans must be laid and commitments made. If business men have confidence in the future, they boldly make their commitments. Their judgments may be right or wrong, but they act upon them. Business optimism is contagious, and may result in overconfidence which leads to unwise expansion and speculative excesses. Sooner or later the day of reckoning comes when men must pay for their errors of judgment. This precipitates liquidation and brings on the crisis.

Again we are told that, when the future of business is uncertain and gloom thickens because pessimism, too, is contagious, all that is needed is the restoration of confidence. With the return of confidence, it is held, business will revive. That confidence is essential to complete recovery there can be no doubt. It is no more the whole remedy, however, than the will to live (powerful a force as it is) is all that a badly injured man needs to regain his health and strength. Basic economic conditions must be sound if business confidence and optimism are to have a rational base. Whether there is a quality of the human mind that finds expression in alternating states of optimism and pessimism and thus helps to account for the periodicity of the business cycle is one of the many "unknowns" about business cycles. It is at present a mere conjecture.

Overproduction and underconsumption in relation to the business cycle. One of the most widespread and persistent ideas in regard to business cycles is that they are due to overproduction, or if one wishes to change the emphasis, to underconsumption of goods. Older forms of the theory of overproduction stressed production as increasing faster than the power of consumers to take goods out of the market. Such general overproduction, it was held, led to a glut in the market and an economic crisis.¹ What is now usually meant by overproduction is not *general* overproduction but rather *unbalanced* production in an economic world in which most producers specialize.

¹ The classical economists had met the theory of general overproduction by pointing out that general overproduction is impossible because the supply of any particular good constitutes potential demand for all other goods.

To maintain balance in our economic system is a most difficult task. Consumers' goods must come to market in quantities no greater than the market can readily absorb. This means that producers as a whole must previously have estimated the effective demand of the market with remarkable precision. In an economic system which requires the coöperation of millions of scattered producers and in which there is no central authority dictating how much shall be produced, there can be no perfect adjustment between production and consumption. There will be many mistakes of judgment both in the field of production chosen and in the productive capacity developed. So long as such mistaken judgments are not highly concentrated in a single industry, the economic system functions reasonably well in spite of them. If important industries, however, in the volume of their production get out of line with the rest, the disturbance may be serious enough to bring on a crisis and to call for remedial action.

Production for the market becomes badly unbalanced through ill-timed expansion in certain lines without a corresponding increase in the purchasing power of other producers which enables the latter to buy the increased output of goods at prices profitable to their producers. Overproduction may be said temporarily to characterize some industries because underproduction characterizes others. There may be relative, even if not general, overproduction. The more accurate description of the situation, however, is that production is unbalanced when one group of producers in our division-of-labor economy is unable profitably to sell its output to other specialized producers, either because the former have produced too much or the latter have produced too little. Motivated by the quest for greater profits, aided by available credit, and sustained by a sublime faith in the consumptive capacity of future markets, some producers in every period of prosperity bring about an expansion in the production of their commodities which exceeds both the present need and the reasonably imminent demand of the market. Every period of prosperity witnesses such mistaken estimates of future demand which release the forces that hasten the end of prosperity. Such ill-timed and ill-advised expansion unbalances production.

There can be no doubt that every depression reveals such mis-

directed or unbalanced production. The difficulty of gauging the absorptive capacity of the market and the further fact that much production must be carried on in anticipation of future demand help to account for what prove to be mistakes of judgment. While unbalanced production is a characteristic of every depression, it offers no explanation of why production periodically becomes unbalanced.

Oversaving and overinvestment in relation to the business cycle. Closely related to the emphasis upon overproduction and underconsumption in relation to the business cycle is the theory (or group of theories), which regards business cycles as in some way associated with too much saving of the national income in proportion to the ability and willingness to buy consumption goods. As a result of the very unequal distribution of income and wealth, the recipients of the larger incomes find it either impossible or undesirable to spend enough of their incomes on consumers' goods to clear the markets. They save what they cannot spend on consumers' goods. When times are good such savings are invested, either directly or through financial institutions, in an expansion of productive equipment, which leads to overproduction. Overinvestment becomes apparent when production outruns consumption. Prices then must fall, profits shrink, and incomes decline. "In the chronic attempt to oversave income", as the English economist, John A. Hobson, puts it, the cause of depressions and business cycles is to be found. Oversaving means that the demand for consumers' goods fails to keep pace with increases in the supply. Depression is inevitable, during which the surplus of goods must be liquidated. When the proportion between saving and spending is reestablished, prosperity can return.

The assumption of this theory seems to be that oversaving leads to underspending, to a shortage of consumer purchasing power. It is of course entirely possible that so large a part of the income derived from productive enterprises may be saved as to disturb the balance between some existing forms of consumption and production. It is also possible that the investment of the savings may be unwisely made, and may result in the development of additional productive capacity where it is not needed. Or again it is possible

that the savings may be used to bid up the prices of real estate or securities and to encourage other speculative excesses.

But it is also well to bear in mind that income saved is not usually hoarded. Unusual circumstances, such as loss of confidence in banks or extreme pessimism in regard to opportunities for productive investments, may prompt people to hoard their savings. Normally, however, savings are invested directly or through investment institutions. Investments are directed toward financing the expansion of old business enterprises or toward starting new ones. Savings disbursed in the process of becoming fixed in business plants and equipment also build up the purchasing power of consumers. Indeed if such expansion is fairly constant the aggregate consumer purchasing power may be more than sufficient to absorb the consumption goods the market affords, which may result in higher prices for such goods. It is when the demand for durable goods, into which savings are largely put, is restricted that we experience our most severe depressions.

The fact that interest rates on long-term loans have not fallen to zero, which would indicate a superfluity of savings, is a fact which the oversavings theory finds it difficult to explain.

The expansion and contraction of credit in relation to the business cycle. That the expansion and contraction of bank credit have much to do with the cyclical movement of business is the contention of many economists. Some see in the overexpansion of bank credit the invariable cause of depressions.

Alvin H. Hansen links the extension of the bank credit with profits in explaining cycles of prosperity and depression. He says: "Bank credit may be likened to a spiral spring which may be stretched within certain limits of safety. These limits depend upon the amount of reserves needed to maintain the solvency of the banking system. The magnetic force which draws out the extensible bank credit is the entrepreneur's anticipation of profit."²

The use of bank credit greatly extends purchasing power. If the

² *Cycles of Prosperity and Depression in the United States, Great Britain and Germany* (Madison: University of Wisconsin Studies in the Social Sciences and History, 1921), p. 106.

credit standing of borrowers is good, the use of bank credit largely depends upon the interest rates that have to be paid for it and the prospects for using it to advantage. The supply of bank credit under modern banking conditions is highly elastic. When prices are rising and profits accruing the demand for bank credit is strong. The issuance of bank credit to entrepreneurs shows itself in greater productive activity, larger employment of labor, expansion of enterprises, and further increases of prices. The profits made stimulate fresh applications for bank loans. "This upward movement comes to a close only when bank credit can no longer be further extended for the reason that it has already reached the limit of banking safety."³ Usually the extension of bank credit is not stopped until too late to save many borrowers from financial difficulties. "Rising prices result in more money being drawn out into hand to hand circulation. The effect is an actual diminution in bank reserves in the very period when bank credit is being extended. It therefore becomes necessary not merely to stop the expansion of bank credit, but actually to reduce the outstanding volume. The *demand* for bank credit is not lacking, but the *supply* is strained to the limit of safety. The banks protect themselves by raising the discount rates and scrutinizing more carefully the solvency of borrowing firms."⁴

The contraction of outstanding bank credit forces some liquidation. Securities must be sold. The volume of business and of employment declines. Prices fall. The demand for bank credit itself slackens. Hansen concludes: "But as the upward movement culminated because of the strain placed upon bank reserves through an undue extension of bank credit, so the downward movement comes to a close because of the great accumulation of bank reserves due to the reduction of outstanding bank credit and the return of money from hand-to-hand circulation following the decline of prices. This continued accumulation of reserves leads bankers progressively to lower discount rates to a point low enough to make the employment of bank credit again profitable. New securities are freely issued, bank loans are readily obtainable, and the purchasing power

³ *Cycles of Prosperity and Depression in the United States, Great Britain and Germany* (Madison: University of Wisconsin Studies in the Social Sciences and History, 1921), p. 107.

⁴ *Ibid.*, p. 107.

of business enterprises increases. Thus the upward swing returns and the cycle repeats itself.”⁵

Other economists in treating the influence of money and credit upon business cycles emphasize particularly that such fluctuations in business are due to changes in the supply of the circulating media. With the expansion of credit, demand is stimulated, production increases, prices rise, and profits grow. With the contraction of currency and credit the opposite conditions follow and business declines.

The prospects of profit-making and the business cycle. Of the many interesting and suggestive explanations of business cycles which have been offered, those emphasizing the expansion and contraction of bank credit and the changing prospects for profit-making are doubtless more widely accepted than any others. Wesley Clair Mitchell, the leading American authority and investigator in the field of business cycles, emphasizes the importance of studying the *course* of business cycles in order to understand the many “recurrent fluctuations in numerous interrelated processes”. He regards business cycles as largely self-generating, one phase of the cycle inevitably leading to the next. The accumulating stresses in a period of prosperity bring on the crisis; the crisis is followed by depression in which necessary readjustments are made; the gradual recuperation of business follows and ultimately develops into another period of prosperity. The alternating accumulation and consumption of stocks of merchandise generate the movement of the business cycle from one phase to the next. Although Mitchell sees merit in each of the leading explanations of business cycles as shedding light upon some feature of these complex phenomena, he points out that it is “anticipated profits [which] play the decisive rôle in fixing the direction to be taken by business expansion”. He further says:

Of course, business prospects are continually being influenced by changes in crops, and in methods of manufacturing, storing, shipping and distributing goods—as well as by changes in politics, fashion, education, recreation, and health. But it is only as these changes affect the prospects of making money that they affect business activity. To take profits as the leading clue to business cycles does not rule out in advance causes of fluctuations which arise from non-business sources; what it does is to focus attention upon the process through which any cause that stimulates or retards activity in a busi-

⁵ *Ibid.*, p. 108.

ness economy must exercise its influence. And that is a desirable result. For it is only by study of the processes concerned that we stand much chance of discovering how recurrent business fluctuations come about.

Economic activity in a money-making world, then, depends upon the factors which affect present or prospective profits. Profits are made by connected series of purchases and sales of goods—whether in merchandising or manufacturing, mining or farming, railroading or insurance. Accordingly, the margins between the prices at which goods can be bought and products sold are one fundamental condition of business activity. Closely connected with price margins is the second fundamental condition—the present and prospective volume of transactions.⁶

Business and industry, then, according to Mitchell, expand when the prospect for profit-making looks inviting to business men; they contract when the outlook for making money is discouraging. The entire course of the business cycle may be thought of as a movement prompted and guided by variations in the profits motive and the prospect for profits. At the beginning of a period of prosperity, when demand is becoming more active, when prices are rising, when costs of operation are lagging behind, and when credit is easy, the prospects for making profits are best. Men become optimistic about the future. Few are far-sighted and level-headed enough clearly to see the dangers and trouble ahead. The desire for profits and the reasonable hope of winning them, as the margin of profits per unit of output increases and the volume of transactions grows, prompt men to expand the scale of their operations. The modernization and expansion of productive facilities set up a demand for capital goods which brings about a further accentuation and diffusion of prosperity.

Ultimately, however, the spread between selling prices and the expenses of production grows narrower. Prices do not advance continuously. Resistance is encountered for one reason or another, psychological or economic. In the meantime costs advance, including wages, interest, and contract rentals. Wastes and inefficiency in

⁶ *Business Cycles, The Problem and Its Setting* (New York: National Bureau of Economic Research, Inc., 1927), p. 107. See also Mitchell's earlier work *Business Cycles* (Berkeley: University of California Press, 1913), which was a pioneer study in the field of business cycles. The contributions of Professor Mitchell have been heavily drawn upon in the writing of this chapter, and their help is gratefully acknowledged.

production are apt to creep in. The profits margin is threatened. The enthusiasm of business men for further expansion cools off. Many of them cannot meet the financial obligations which they incurred in connection with the expansion of their enterprises. When profits disappear and realized earnings cannot carry the outstanding obligations of business, a collapse is inevitable. This is the crisis of the cycle. Not until all the necessary readjustments, previously sketched in this chapter, are made, and a new equilibrium of prices and costs is established, which offers a fair chance for renewed profit-making, is the way cleared for another period of prosperity.

The theory of business cycles which emphasizes the changing prospects for profit-making is the most inclusive of all the theories, because all factors influencing the course of business sooner or later affect the profits margin and the outlook for further profits.

Although many theories have been offered by economists in explanation of business cycles, and although no unanimity of opinion has been reached, many of the theories differ chiefly in what they emphasize. They deal with certain important factors in the situation but not with its totality. Some of the theories may be mutually exclusive but others are complementary. To arrive at a thoroughly satisfactory explanation of business cycles, and at the same time to devise effective means for controlling the cyclical movement of business so as to eliminate or curb its evils, are problems which promise to absorb the attention of many economists for years to come. The business cycle in many of its aspects is still an unsolved problem.

THE CONTROL OF BUSINESS CYCLES

Even though the cause or causes of business cycles may not be fully understood, there is fairly general agreement that some plans are worth trying as preventive and control measures. The elimination of the widest swings of the business cycle is a consummation devoutly to be hoped for. To smooth the course of a business cycle by pulling down its peaks and lifting up its valleys would enormously promote the stability of economic society and would eliminate much human suffering. In general, the plans proposed for the

control of business cycles and their evils may be classified as plans to control the currency, plans to control the expansion and contraction of credit, and plans to control production itself.

Control of the currency. Plans for the control of business cycles through the regulation of the currency and credit are based upon the idea that the stabilization of prices will do much toward reducing or eliminating the fluctuations of the business cycle. Changes in the general level of prices are an invariable concomitant of business cycles. Whatever can be done to stabilize prices will reduce the sharp fluctuations in profits and cause business to move more evenly and steadily.

Among the oldest of the monetary remedies proposed for the stabilization of prices is the bimetallic standard. The bimetalist argues that two commodities (gold and silver) will make a better standard of value than one (either gold or silver); that the free and unlimited coinage of both metals will have a compensatory effect upon any threatened or actual small change in the market ratio of the metals, which will tend to keep the market and legal ratios together; that this will create a more stable standard of value and consequently more stable prices. The shortcomings of the bimetallic standard as a price stabilizer, whenever it has been tried, have arisen out of the practical impossibility of keeping the market ratio identical with the legal ratio. In practice, bimetalism has broken down; the cheaper metal in the markets has driven the dearer metal out of circulation, and has become the actual standard of value. Prices expressed in a cheaper metal are apt to fluctuate more than if expressed in a dearer metal.

Fiat money plans have frequently been proposed as a means of managing the volume of the currency and in the long run of controlling the level of prices. The argument offered in support of the alleged superiority of fiat money over metallic money as a standard of value is, that if the government will wisely control the amount of fiat money issued, prices can be more stable than when measured in a commodity, like gold, the value of which fluctuates with changing market conditions. The success of such a paper money plan for stabilizing prices hinges upon legislative or governmental restraint in the issuance of such money, the avoidance of inflation, and con-

tinued confidence in such money manifested by its general acceptability. These are hard conditions to achieve in practice.⁷

The suggestion that the United States adopt a tabular standard of value, such as the compensated dollar, the stabilized dollar, or the commodity dollar, is the most vigorously urged of the present proposals to stabilize prices through the management of the currency. In this country this proposal is inevitably associated with the name of Professor Irving Fisher, whose forceful writings and speeches have contributed much toward arousing public interest in the issue of stable money. Fisher points out that the dollar is a dollar only in name. It is a unit of weight but not of purchasing power. What we need, however, is a stable unit of purchasing power, if we would avoid sharp price fluctuations. Every other unit of measure used in commerce, such as the yard and pound, has gradually been standardized. At one time these were no more standardized as units of length and weight than the dollar is standardized now as a unit of purchasing power.

Fisher's proposal is that instead of measuring the value of a dollar in terms of a fixed quantity of pure gold, such as 23.22 or 13.71 grains, the value of the dollar shall be measured by an aggregate of goods selected on the basis of their relative importance in trade. He calls such a dollar a "goods-dollar". Changes in the value of the goods-dollar are to be measured by index numbers. While the goods-dollar would be a satisfactory standard of value it would be an impractical, if not impossible, medium of exchange. Accordingly, Fisher proposes to retain the gold dollar as a medium of exchange, but not as a coin. He plans to let it circulate by gold certificates redeemable in varying amounts of gold bullion. If the index number shows that the prices of the commodities composing the goods-dollar have increased one per cent, he would increase the weight of the gold dollar one per cent in order to pull prices down again. If the index number shows that prices have fallen one per cent, he would decrease the weight of the gold dollar one per cent in order to raise prices. Fisher proposes to limit the change in gold bullion paid out to one per cent per month but thinks that ultimately this would offset any price changes

⁷ Cf. Chapter XII, "The Money System of Exchange", pp. 281-293 for a discussion of bimetallism, and pp. 280-281 for a discussion of fiat money.

likely to occur. By the device of redeeming gold certificates in varying quantities of gold bullion he expects to keep the gold dollar close to the goods-dollar and thus to stabilize its purchasing power.⁸

Among the chief objections urged against the compensated dollar is the contention that in times of rising prices governments may find it politically inadvisable to try to reduce prices by increasing the gold content of the dollar, since this might stifle the expansion of business. The chances are, it is held, that the gold content of the dollar would be reduced but not increased. The prevention of speculation in dollars, which would be undertaken in order to profit by changes in the gold content of the dollar, would also constitute a problem of the first magnitude. Foreign exchange rates would also be disturbed by the varying gold content of the dollar. The plan of varying the gold content of the dollar leaves untouched the much larger and more important problem of credit control.

The control of credit. The control of credit, as a means of controlling prices and moderating the business cycle is today receiving more attention than proposals to control the currency. In the United States the federal reserve banking system has three powers which may help to control credit and exert some influence upon the level of prices and the cyclical movement of business; the control over rediscount rates, the right to engage in open market operations, and the power within prescribed limits to increase the reserve ratios of member banks.⁹ When the rediscount rate is advanced, borrowing becomes more costly and credit is tightened; when it is lowered, borrowing is encouraged and credit becomes easier. Changes in the rediscount rate, however, can only have a direct effect upon the credit situation provided member banks find it necessary to borrow. If they do not find it necessary to rediscount, the rates of rediscount, whether high or low, can have no direct effect upon the market because they will not be passed on in higher or lower rates to borrowing customers.

While changes in the rediscount rate are intended to affect the

⁸ Cf. Irving Fisher, *The Purchasing Power of Money* (New York: The Macmillan Company, 1911); *Stabilizing the Dollar* (New York: The Macmillan Company, 1920), Chs. II-IV; *Stable Money* (New York: The Adelphi Company, 1935).

⁹ Cf. Chapter XIII, "The Credit System", pp. 332-335, 344-345 for an account of these powers and operations.

price of credit directly, open market operations are designed to affect the supply of credit and thus indirectly to influence its price. When the federal reserve banks under the mandatory directions of the Open Market Committee of the System buy commercial paper and securities in the open market, they are supplying the market with funds in exchange for the paper and securities, which tends to lower interest and discount rates and to encourage borrowing. Similarly, when the federal reserve banks sell commercial paper and securities in the open market, they are withdrawing funds from the market, which tends to raise interest and discount rates and to discourage borrowing. Lowering the rediscount rates and buying paper and securities in the open market are the principal devices at the disposal of the federal reserve banks for making credit easier and more plentiful. Raising the rediscount rate and selling paper and securities are the corresponding means for restricting credit. The withdrawal of funds from the market through the sale of paper and securities promises to be more effective in controlling credit than the supplying of funds through purchases of securities. Withdrawal of funds may restrict credit; supplying funds does not necessarily create the will to borrow.

A new power conferred upon the Board of Governors of the Federal Reserve Banking System by the Banking Act of 1935 is the power to change the reserve requirements which must be maintained by member banks against their time and demand deposits. The board may not reduce the existing requirements but it may raise them to a maximum of twice the present amounts. This power may be used to prevent undesirable and injurious credit expansion, and to relax credit when the emergency has passed.

The chief hope in the use of credit control measures lies in applying them during the prosperity phase of the business cycle. It has been said that the best way to avoid depressions is to "sit on" the boom of the preceding period of prosperity. To restrict the use of credit when times are good will require both great intelligence and courage on the part of all who are concerned with the shaping of credit policies and the actual extension of credit.

When a recession has set in and liquidation is in process bankers are naturally cautious in making loans and highly selective in their

credit risks. Business men are not eager to borrow when the outlook is dark, no matter how great the available supply of credit may be. Bank credit finds its natural use by business men when the prospects for profit-making are good. "Credit injections" during the periods of recession and depression are not apt "to take", and if they do may lead to harm.

Control of production. If production could be perfectly adjusted to consumption, since the two processes are highly interdependent, the problem of business cycles would be largely solved. Such adjustment between production and consumption is the hope and objective of business as a whole. Its achievement spells success, while lack of such adjustment means failure for many business enterprises. The difficulty under a system of free enterprise is that decisions concerning what and how much shall be produced are left to the judgment of millions of scattered producers. They are largely guided by prices for their products and the prospects of profits in their business ventures. Mistakes of judgment are bound to occur. Some attempts are being made to develop and to utilize economic forecasting. The collection, analysis, interpretation, and dissemination of trustworthy business statistics, which reveal present conditions and which are made the basis of predictions concerning future trends, should prove most useful in making decisions concerning production. Forecasting of economic events is in its infancy but it has great potentialities for growth and useful service. Much more of it will ultimately have to be undertaken by the government. A number of commercial forecasting services are now available to business men who care to subscribe for them.

Many attempts have been made to stabilize production in certain lines either by withdrawing productive capacity from the market or by temporarily withholding produced goods. Crop restriction practices of the Agricultural Adjustment Administration are a notable example.

There are those who contend that all stabilization of production measures are mere temporizing devices, unless they are integral parts of a planned economy; that the perfect adjustment between production and consumption can only be achieved through some form of the collective state. It must be admitted that the establishment of

economic and political dictatorships, vested with the power to decide what shall be produced and what shall be consumed, can bring about an equilibrium of a sort between production and consumption. The question for any people to decide is whether it wants such stabilization badly enough to surrender a large part of its freedom of choice in producing and consuming, in buying and selling goods.¹⁰

¹⁰ Cf. Chapter XXXVI, "Capitalism and Plans for Economic Reconstruction".

PART IV
CONSUMPTION AND SAVING

CHAPTER XXV

THE INTERDEPENDENCE OF CONSUMPTION AND PRODUCTION

NATURE OF CONSUMPTION

The production, exchange, and valuation of goods, which have been considered in the preceding parts of this book, are social processes which make possible the gratification of human wants. For the most part, men produce in order that they may consume. In the case of individuals, however, consumption is often not a very conscious objective in production. Some men work from force of habit; or because work is more enjoyable than inactivity; or perhaps because work means life to them very much more than a mere means of living. Whatever the motivation of individuals in productive and acquisitive activities may be, there can be no question that, from the social point of view, our whole productive system is organized to make possible larger and better living.

Consumption means the use of goods in the direct satisfaction of human wants. Goods, which often follow a circuitous route through all the processes of production and exchange, have reached their final destination when in the hands of the ultimate consumer, whose wants they are intended to gratify. Such consumption, illustrated by the food we eat, the clothes we wear, and the houses we live in, is known as *final consumption*. We consume in this way not only material goods, but also personal services, such as those of the barber who cuts or "bobs" our hair. There is final consumption of durable goods, such as a painting, quite as much as of goods, like food, the form of which is changed in the very act of consumption. Sometimes such final consumption proves harmful rather than beneficial. Consumption is *harmful* when it tends to lower the efficiency of the consumer, often diminishing in the long run the amount of his satisfactions as a consumer, and frequently impairing

his efficiency as a producer as well. The fact that harm rather than benefit follows an act of consumption does not make it any the less an act of consumption. Again consumption may be *destructive*, a form of consumption in which the satisfaction derived is insignificant when compared with other uses that could be obtained from the goods. The classical illustration is furnished by Nero's alleged burning of Rome, which was destructive consumption, whatever incidental utility it may have furnished the consummately egotistical emperor. Some luxuries are consumed so wastefully that their consumption is really destructive, for the satisfaction derived is trivial in comparison with the uses that might have been derived from the goods. While consumption may sometimes be harmful and occasionally destructive, most final consumption is neither. Whatever specific forms it may take, final consumption is the summation of all economic activity.

Consumption affected by diminishing utility. There is small reason to suppose that all human wants will ever be satisfied. There is little likelihood that goods will so increase in amount, or that the number of people will so decrease, as to eliminate the fact of scarcity. Consequently most men must choose what wants to gratify, and how far to go toward satisfying a given want in relation to other wants demanding gratification. While there is seemingly no end to the number of man's wants, it is equally true that a single want at any given time is soon satisfied. Man's psychological organism tires of an often repeated stimulus. His reactions are subject to the law of diminishing utility, which means that the gratification received from the consumption of a good tends to decrease as one consumes successive units of it. It is implied, of course, that during the process of consumption there is no change in the consumer and that the successive units be consumed *at a given time*. If not, the organism has a chance to recuperate and for the time being no diminishing gratification may be experienced. But if these conditions be present, the principle applies. As consumers, we do not derive utility from an indefinite number of units of the same good. Everyone knows, for instance, that the utility derived from the consumption of cold drinks on a hot summer day tends to diminish as one drinks successive glasses of some refreshing liquid. Eventually

it falls to zero, and perhaps in some moment of indiscretion, to sub-zero.

But the principle of diminishing utility has wider application than is suggested by the ordinary consumption of drinks or food. Here the basis of the principle is essentially physiological. But it is just as applicable to goods that are consumed in other ways. The fact is that there is a limit to the number of units of a given good that a consumer can use advantageously or find any use for at all. Most goods afford him a variety of uses, of greater or lesser importance. A single unit of a good will be used to gratify the most important want for that good; another will serve a less important use; and so on with additional units, until finally no additional utility is afforded by another unit. The automobile, for example, apparently has an almost universal appeal to the American people, for there are approximately 22,000,000 registered passenger cars in the United States. While every family does not yet have a car, and perhaps never will, many have several. For such pleasure-car owners the utility derived from the use of a single car is usually high in relation to other goods. The large number of cars bought on credit or on some partial payment plan is striking evidence of this fact. For some, a second car seems equally necessary, and a third a great convenience. The limitations of garage accommodations and of parking facilities, not to mention other factors, are such, however, that the utility obtained from the use of cars drops off rather sharply after the consumer has acquired a very limited number. This principle of the diminishing utility that men tend to get from the consumption of the successive units of a good strongly affects consumers' choice, and through this, the whole of our economic life.

Consumption affected by variety and harmony of the goods consumed. While consumption is restricted by the everyday experience of diminishing utility, it is also enlarged by observing variety and harmony in the goods consumed. The fact of diminishing utility prompts men to diversify their expenditures in order that they may get the largest utility yield from their outlay. Every course dinner illustrates the principle of variety in consumption. No one would think of furnishing a wardrobe or home without observing this principle. Why buy more of a given commodity, when

an equal expenditure will procure another good that will yield greater utility? The careful consumer-buyer does not do this. To the extent that men can classify their wants with reference to degrees of intensity and act in accordance with such knowledge, they tend to choose those goods which will afford them the largest gratification per unit of expenditure. Our most urgent wants come first. But we do not consume an indefinite number of units of the good that satisfies our most urgent want. As we increase our consumption of it, its marginal utility (the importance to us of a single unit) rapidly falls. Greater gratification can be obtained by spending our money for something else. Consequently we tend so to diversify our expenditures as to get the largest possible total utility. This is fully achieved only by those consumers who so regulate their expenditures that the gratification derived from the final dollar's purchase of any good is equal to that of every other dollar's. Such persons have achieved a perfect balance of their marginal utilities. As buyers they are getting "the most for their money". The marginal utilities of a consumer, all together, locate his margin of consumption. The economical consumer, intent upon getting the greatest possible gratification, seeks constantly to keep his marginal utilities as nearly equal as possible.

A closely related fact of everyday experience is that the gratification derived from consumption is deepened by observing harmony in the goods consumed. To effect harmony in variety is the way greatly to increase the utilities of consumption. Some goods go together so perfectly that the want-satisfying power of each is enhanced by the presence of the others. Some of these same goods, however, in other combinations may spoil the effect of the whole. Many people get their primer lesson in the need of harmony in consumption through some injudicious mixture of foods that were never intended to be consumed together. A well-balanced diet expresses the principle of harmony in consumption; in the long run it not only promotes health but yields the greatest gratification. Everyone knows how indispensable harmony is to the most pleasing appearance in dress or house furnishings. Without it one may get striking effects, but none that will afford pleasure to those who know and appreciate good taste.

THE MEASUREMENT OF CONSUMPTION

Since it is impossible to measure the utilities of consumption because they are psychic experiences of the consumer, any measurement of consumption must be made in other terms. It is possible, however, to ascertain the physical units of goods which a family or community consumes, such as pounds of flour and meat and sugar, and from such physical magnitudes to arrive at a measurement of the volume of consumption. It is equally possible to measure consumption in terms of the relative money expenditures for different classes of consumption goods. Indeed, in measuring the consumption habits of a people it would be exceedingly instructive to know what consumers do with their incomes. The individual or family that keeps a record of expenditures can have accurate information as to what has become of the income. But unfortunately there is no such national system of accounting. All estimates of the expenditures of a people are crude approximations at best. A number of notable quantitative studies have been made, however, using actual statistics of expenditure furnished by families coöperating in the studies. Such studies are extremely suggestive of the consumption habits of people. The earliest important study of this kind was published in 1857 by Engel, who used data gathered in Saxony. It was his hope that by a large number of such studies it would be possible to forecast coming economic changes as a result of known changes in the consumption habits of people. While his hope has never been realized, in spite of a considerable number of excellent later studies, much significant information concerning consumption has been assembled.¹

¹ The reader is referred to the following as among the more important quantitative investigations into the expenditures of selected families in the United States: R. C. Chapin, *The Standard of Living in New York City* (New York, 1909). Louise B. Moore, *Wage Earners' Budgets* (New York, 1907).

Jessica Peixotto, *Getting and Spending at the Professional Standard of Living* (New York, 1927).

Frank H. Streightoff, *Report on the Cost of Living*, New York State Factory Investigating Commission, Vol. IV (1915), 1625-1654.

United States Bureau of Labor, *Eighteenth Annual Report of the Commissioner, Cost of Living and Retail Prices of Food*, (1903).

United States Bureau of Labor Statistics, "Cost of Living in the District of

The most comprehensive and recent of these studies is that conducted in 1918-1919 by the United States Bureau of Labor Statistics and the National War Labor Board. The income and expenditures of more than 12,000 families living in ninety-two different industrial centers of the United States were studied. The following table shows, for various income groups, the percentages of the total yearly income spent for various purposes.

PERCENTAGE DISTRIBUTION OF EXPENDITURES AS MADE BY WAGE-EARNERS' FAMILIES IN 92 INDUSTRIAL CENTERS IN THE UNITED STATES BY INCOME GROUPS, 1918-1919 ²

INCOME GROUPS	NUM- BER OF FAM- ILIES	DISTRIBUTION OF EXPENDITURES						
		Food	Cloth- ing	Rent	Fuel and Light	Furni- ture, Fur- nish- ings	Mis- cel- lane- ous	To- tal
Under \$900	332	44.1	13.2	14.5	6.8	3.6	17.8	100
\$900 and under \$1,200	2,423	42.4	14.5	13.9	6.0	4.4	18.7	100
\$1,200 and under \$1,500	3,959	39.6	15.9	13.8	5.6	4.8	20.2	100
\$1,500 and under \$1,800	2,730	37.2	16.7	13.5	5.2	5.5	21.8	100
\$1,800 and under \$2,100	1,594	35.7	17.5	13.2	5.0	5.5	23.0	100
\$2,100 and under \$2,500	705	34.6	18.7	12.1	4.5	5.7	24.3	100
\$2,500 and over	353	34.9	20.4	10.6	4.1	5.4	24.7	100
All income groups	12,096	38.2	16.6	13.4	5.3	5.1	21.3	100

This study of the expenditures of American wage-earners having incomes not over \$2,500 per year established two facts: First, as income increases, the percentage of it expended for (a) food, (b) fuel and light, and (c) housing, decreases. Second, as income increases, the percentage of it expended for (a) clothing and (b) sundries increases. It is not to be inferred that the expenditures of any given family within one of the indicated income groups will necessarily be distributed in accordance with the percentages or principles stated. Nevertheless, the studies made, and the generalizations based

Columbia", *Monthly Labor Review*, V (1917), 639-655, 835-846, 1073-1090; VI (1918), 1-12, 253-264, 493-505, 769-780; VII (1918), 588-598.

United States Bureau of Labor Statistics, *Cost of Living in the United States*, Bulletin No. 357 (1924).

² United States Bureau of Labor Statistics, *Monthly Labor Review*, IX (1919), 118. Cf. also United States Bureau of Labor Statistics, *Cost of Living in the United States*, Bulletin 357 (1924), p. 5.

upon them, furnish quantitative evidence of the trend of expenditures in the United States. Perhaps, they only furnish large-scale statistical confirmation of what the reader can discover for himself by examining his own personal or family expenditures over a period of years. Food and protection against the cold being primary necessities, they naturally require a large part of the income of the poor. But since there is a limit to the amount of food one needs and the amount of fuel and light one can use, the percentage of the yearly expenditures devoted to these decreases as one rises in the scale of income. While the percentage spent for housing tends to remain constant in the lower-income groups, it also decreases as the income grows larger. But when income permits it, the percentage spent for clothing and miscellanea, such as education, travel, recreation, and furnishings, shows a marked increase. Rising standards of living, social pride, and competition readily account for this.

No conclusive quantitative studies have been made showing the distribution of the expenditures of the higher-income groups. Those we have, however, show similar trends except in the case of clothing and housing. In the higher-income groups the percentage of income spent for clothing decreases, and that spent for housing increases somewhat. Apparently when people can afford it, they elect to live in more commodious houses and in more expensive neighborhoods. The percentage spent for sundries increases very materially.³

Until such time as governments will be able to tabulate the expenditures for consumption goods by representative income groups in all industries and geographic regions, we shall have to rely on many indirect sources of information for our measurement of consumption. To supplement the rather meager available statistics of consumption furnished by a study of sample family budgets, production statistics are customarily used, on the assumption that what is produced is usually also consumed rather than wasted. What estimates of income expenditure have been made, however, all reveal that, on the basis of available data, it is impossible to offer

³ National Bureau of Economic Research, *Income in the United States* (New York: Harcourt, Brace and Company, 1922), II, 26.

anything more than rough approximations of the amounts spent for various classes of consumption goods, or of the relative importance attributed to them in the total volume of such expenditures. The following tables represent the results of three such attempts. Paul H. Nystrom's figures represent estimated dollars of expenditures. E. E. Hoyt's figures are percentages of the total national consumption estimated to have been spent for the respective classes of consumption goods; the absolute amounts would be obtained by applying these percentages to the estimated national income for a given year. Clark Warburton's tables combine both absolute figures and percentages of the "national product" spent for the designated purposes, including consumers' goods and new capital goods.

ESTIMATES OF INCOME EXPENDITURE ⁴

<i>Class of Consumption Goods</i>	<i>Dollar Expenditures (Millions)</i>
Food (1925)	24,000
Clothing (1925)	12,000
Rent paid out and estimated on owned homes	8,100
Home furniture and furnishings	4,751
Fuel and light	4,800
Miscellaneous:	
Health maintenance	3,600
Leisure	15,070
Savings	10,000
Total	<u>28,670</u> 82,321

PERCENTAGE OF TOTAL NATIONAL CONSUMPTION ATTRIBUTED TO EACH MAIN
CLASS OF GOODS AND SERVICES IN THE UNITED STATES ⁵

<i>Articles</i>	
Food	27
Clothing	13
Shelter	12
Fuel and light	4

⁴ Paul H. Nystrom, *Economics of Consumption* (New York: Ronald Press Company, 1929), Chs. XIII-XIX.

⁵ E. E. Hoyt, *The Consumption of Wealth* (New York: The Macmillan Company, 1928), p. 275. See also Louis Bader, "Can We Find Out How the American Income Is Spent?", *Journal of the American Statistical Association*, XXVI (1931), 285-294, for a critical discussion of these and other attempts to measure the expenditures of national income.

Sundries

Furniture and furnishings	2
Tobacco, candy, soft drinks, gum	5
Education and reading	1
Health	2
Automobile	5
Other recreations	
(theaters, ball-games, club dues, etc.)	3
Miscellaneous	4
(Cosmetics, writing materials, street-car fares, contributions, etc.)	
Savings and insurance	12
Taxes	10
Total sundries	<u>44</u>
Total of all	<u>100</u>

COMPOSITION AND VALUE OF THE NATIONAL PRODUCT IN 1929 ^a

<i>Components of the National Product</i>	<i>Value in Millions of Dollars</i>	<i>Percentages of Total Product</i>
A. Consumers' goods and services		
Food and non-alcoholic beverages	20,055	21.1
Shelter and home maintenance, including rentals, home equipment, decoration, household supplies and operation	22,356	23.5
Wearing apparel and personal care	13,669	14.4
Other consumers' goods and services including	(29,237)	(30.8)
Transportation	8,122	8.5
Communication	935	1.0
Health and medical care	3,556	3.7
Protective and civil services	1,652	1.7
Education and reading matter	3,626	3.8
Social organizations	1,458	1.5
Recreation and art goods	3,658	3.8
Stimulants	6,230	6.6
B. Capital goods		
Structures and equipment adjusted for new capital goods purchased from depreciation allowances	9,367	9.8
Changes in inventories	145	0.2
Changes in investment abroad	221	0.2
	95,050	<u>100.0</u>

^a Clark Warburton, "How the National Income Was Spent", *Journal of the American Statistical Association*, XXX (1935), supplement of March, 175-182.

CONSUMERS' GUIDANCE OF PRODUCTION

What the consuming public chooses to do with its income is a matter of the greatest importance in shaping the course of our economic life. By spending or not spending, by spending for this rather than for that, consumers stimulate or check the volume of production and guide the investment of productive energy. So great at one time was the domination of the consumer over production that as a rule no production was undertaken until he had issued his orders. This was the custom-order stage. While modern production seeks to anticipate rather than to await the orders of the consumer, it is still true that the consumer must make the final decision as to how and when his income shall be spent.

Universal consumption is somewhat like universal suffrage; it is a democratic means of control. In this country an educational qualification is a prerequisite for neither. The only qualification required for consumption is the possession of income with which to acquire the desired goods. In economic elections a consumer casts as many votes as he has dollars to spend. One man's money is as good as another's. If the economic electorate votes to spend its money for baubles instead of essentials, for shoddy goods instead of genuine articles, for things that are ugly instead of for things that are beautiful, such things will be produced. Consumers' choice, whether it be wise or foolish, guides the operation of our industrial system. It is like closing an electric circuit and thereby turning on a current that sets the wheels of the productive mechanism into motion. The choices of consumers together make up the composite demand for goods, which in turn authorizes the creation of the necessary supply. The consumer, then, occupies the most strategic position in our economic system; his decisions are orders to countless producers; the work of the world is done in anticipation of his choices and in response to them.

This study was made in connection with the investigation of the Brookings Institution into "The Distribution of Wealth and Income in Relation to Economic Progress". The table is condensed and adapted from the tables as presented by Mr. Warburton.

PRODUCERS' INFLUENCE UPON CONSUMPTION

This recognition of the final authority of the consumer is not to be understood as a denial of another important fact, namely, that the consumer is often more servant than master of the producer. While it is true that production is undertaken in response to the present and future demands of consumers, it is also true that production has become highly specialized and that enormous investments have been made in productive enterprises. Mass production requires sales volume to justify itself. Producers wish to sell the goods they produce and so to maintain their businesses as "going concerns". In consequence, great pressure is brought to bear upon the consumer through the whole marketing organization of modern business to induce him to buy what the producer has to sell. Consumers' choice is usually limited by the goods that are available in the market. What goods shall be available, and in what qualities and styles, the modern producer usually decides with seemingly little, if any, aid from the great mass of consumers.

The technique of producers in creating and guiding the demand of consumers is principally expressed in elaborate marketing methods, including advertising in its various forms, sales promotion, and retail salesmanship. It is estimated that in the United States alone about half a million persons are normally employed in advertising, and that the nation's annual advertising bill runs from one and a half to two billions of dollars. Even larger than these impersonal selling costs of advertising are the direct costs of personal selling. Through such prodigious expenditures of money and energy producers hope to create and retain demand, to guide and control it. Advertising was once in disrepute; the notion still persists in the minds of some people. The best business houses at one time did not advertise. Manufacturers, particularly, left such selling efforts to the retailers. But with the rapid growth of large-scale competitive enterprise, business became more aggressive in order to ensure its own survival. Now the slogan "It pays to advertise" is widely accepted in the business world.

One of the devices to which producers resort in their attempts

to influence consumption is to place brands upon their products, and then to popularize these brands. It was once customary to sell many goods in bulk and to sell most goods without any special designation by the producer. Then no particular attempt was made to influence the demand of the consumer. The establishment of market brands, however, marked a change in selling policy. Presumably goods which bear the brand or trade-mark of the producer carry with them his endorsement and his bid, on the strength of the quality and price of the commodity, for a continued and growing volume of business in the future. Through extensive and expensive national advertising the producers of different brands of merchandise have cleverly sought to develop partisanship for their particular brands in the minds of as many consumers as possible. How far-reaching and effective the influence of producers over consumers in such matters really is will doubtless always be a matter of conjecture and dispute. The deciding facts are unknown. Unquestionably, the suggestibility of most consumers is such that clever advertising and salesmanship, sometimes subtle, frequently bold, can "overcome sales resistance" and stimulate the reaction desired by the producer. One force counteracting the wiles and pressure of producers to secure volume consumption of their goods is the desire of consumers for something that is individual and different in at least some of the goods they buy.

Rapid changes in styles, together with a steady attempt to extend the sway of fashion over more and more of the field of consumption, are other means adopted by producers to affect consumption. In matters of fashion the new is the enemy of the old. The new comes to supplant the old. It matters not that the old has not yet outlived its usefulness. The appearance of the new makes it obsolete, if one would be in fashion. So rigorous are the dictates of Dame Fashion that one must be a rugged individualist, indeed, largely indifferent to social approval in such things, in order to ignore her decrees, if economic resources would otherwise permit one to conform. Producers have sought by means both fair and foul to stimulate the competitive spirit among consumers, to quicken the desire not to be outdone by others, or at least not to be conspicuous through non-

conformity to prevailing modes. Upon their success in this respect depends much of their influence over consumption.

Producers are concerned with the strategy of persuading consumers to spend their money and to buy with it what they have to sell. The real education of the consumer, in the sense of giving him unbiased information upon which to base a discriminating judgment, is usually lacking. Producers seek primarily to influence the buying of consumers and only secondarily, if at all, to educate and benefit them. In the stimulation and development of new wants, such as the use of household electrical appliances, there are considerable educational work and value. But in the main, the selling technique of producers is dominated by the spirit of competition. Every producer is under the necessity of winning patronage for himself, which often means an attempt to take business away from his competitors. What is more, it is to the decided advantage of the producer to induce the public to consume those goods in which his margin of profits is greatest. Such an intensely competitive contest, involving the life or death of business enterprises, does not furnish the proper agency for the disinterested education of the consumer or for selling him only that which will benefit him most.

The chief protection of the consumer against misrepresentations and the exercise of unfair influence by the producer is the desire of the latter to please and satisfy the consumer, so that he may continue to do business with him. Established business houses are not much concerned with the single sale; but they are vitally interested in transactions which so satisfy customers as to give rise to repeated patronage in the future. In his power to withhold patronage from producers who deceive him or otherwise take an unfair advantage the consumer finds his best protection. Of course if either the producer or the salesman that represents him is not interested in anything but the sale of the moment, even this protection fails the consumer. But usually both the continuance of his own patronage and the good-will which the consumer creates by favorable "word-of-mouth advertising" are so important to the producer that it is good business to satisfy the consumer.

THE BALANCE OF CONSUMPTION AND PRODUCTION

Consumption guides and sanctions production. Production influences and sometimes controls consumption. It is futile to consider which is primary or the more important. The most distinctive thing that can be said about the relation of consumption and production is that the two are completely interdependent. Just as demand and supply are not independent but interdependent forces in the establishment of market prices, so consumption and production are interdependent processes in the maintenance of our modern industrial life.

Too much emphasis cannot be placed upon the indisputable fact that the smooth functioning of capitalistic industrialism depends upon maintaining the best possible balance between consumption and production. If consumption outruns the current production of a particular good, there will soon be an acute shortage. If production outruns consumption, there may be an unmanageable surplus. When production has been properly geared to consumption, and the production of various kinds of goods has been brought into such reasonable balance that ready exchanges may be made at prices that justify the cost of producing the goods, the sudden development of either large surpluses or shortages is apt to play havoc with the entire price system. While it may seem that it ought to be easier to handle a surplus than a shortage, both present adjustment problems of unusual difficulty. Modern industrialism works best and with the fewest interruptions when consumption and production are most nearly in equilibrium. An economic society in which production is geared to consumption and in which one line of production is geared to all the rest is not to be thought of as something static. Its equilibrium is the equilibrium of a mechanism in motion rather than at rest. It does not preclude such expansion of business enterprise as comes with the normal development of increased population and wealth, which lead to greater consumption. Such expansion, however, is gradual and rarely proves a serious disturbing element. It does not even preclude an increase in production all around, within the limits of consumption physically possible, for the reason that John Stuart Mill long ago pointed out when he said:

“Could we suddenly double the productive powers of the country, we should double the supply of commodities in every market; but we should by the same stroke double the purchasing power. Everybody would bring a double demand as well as a double supply; everybody would be able to buy twice as much, because everyone would have twice as much to offer in exchange.”[†]

[†] *Principles of Political Economy*, edited by W. J. Ashley (London: Longmans, Green and Co., Ltd., 1920), p. 558.

CHAPTER XXVI

FACTORS AFFECTING CONSUMERS' CHOICE

NATURE OF CONSUMERS' CHOICE

No matter how much the choices of consumers may be influenced by producers eager to dispose of their goods, ultimately the final decisions as to what shall be consumed and in what amounts must be made by the consumers. But consumers' choice is neither always economic nor always rational. It would be strictly economic if it invariably fell upon goods that yield the largest return per unit of expenditure. Such is very much more apt to be true of the choices of producers than those of consumers. If a producer makes serious errors of judgment in his outlays, his costs of doing business will rise and he may perish in the competitive struggle. Consumers' choice, on the other hand, is often frivolous and uneconomic. The financial commitment is usually not so serious; at most the consumer may temporarily have to go without goods that he might have procured with the funds represented by his ill-advised purchase.

Neither is consumers' choice always rational. To make a strictly rational choice requires information and time for investigation that consumers frequently do not have. There is often a staggering array of goods from which to choose. Countless suggestions designed to affect choice may pour in from every side. Moreover, we are all creatures of impulse. The upshot is that many consumers' choices are impulsive rather than deliberate. We often buy on the spur of the moment and perhaps repent at leisure. Frequently, to be sure, when some major purchase such as that of a house is to be made, the consumer-buyer proceeds with the utmost care and seeks to arrive at a thoroughly rational conclusion. This is most apt to be true of all purchases involving relatively large expenditures.

Although consumers' choice is commonly the expression of im-

pulse and habit, both the consumer and his mentor, the producer, seek to rationalize the choice. We all like to offer plausible reasons for doing what we actually do in response to the impulsive tendency of some habit. But particularly the producer, through the techniques of advertising and salesmanship, is most skilful in rationalizing the choices of the consumer, whether these be wise or foolish. And usually the consumer is quite willing to accept the most readily available reasons, be they sound or specious, for justifying his choices not only to others but also to himself.

TECHNOLOGY OF PRODUCTION AS A LIMITATION UPON CONSUMERS' CHOICE

Human behavior is so complex and varied that one can only hope to distinguish some of the more general and objective factors affecting consumers' choice. Foremost among these must be placed the technology of production of any given time and place. Obviously the range of consumers' choice must be limited by the stage of progress reached in the technical arts of any period. Only a generation ago "horseless carriages" and "flying-machines" were mere dreams of a few visionaries. Today automobiles and airplanes are considered indispensable modes of transportation. There has been an astounding improvement in the technique of production, which has steadily widened the consumer's range of choice, has so cheapened costs as to bring many one-time prohibitively expensive articles within the purchasing power of the poor, and has even improved the quality of goods which the great masses of people buy.

The variety and quality of foodstuffs available to city consumers are incomparably superior to what they were only a generation ago. The table of an average American family is annually supplied from regions all over the earth, both near and remote. The advent of refrigeration and rapid transportation has made it possible for the consumer to select fresh fruits and vegetables the year round. Coarse homespun clothing is no longer worn. Instead there is an alluring array of fine raiment from which to select, varying in weave, color, and design, and made from fabrics of cotton and wool, rayon and silk. Housing units, ready-made and custom-built, are available

in all sizes and degrees of comfort and elegance. The air may be heated in the winter by a variety of methods and cooled in the summer to suit the demands of occupants. The consumer who wants to travel has a bewildering number of attractive destinations from which to choose, and he may select simple or luxurious modes of transportation on land and water or through the skies. If he chooses to talk with anyone at a distance, be it short or long, the telephone is instantly available, and other means of communication are at his call. If he wishes to be entertained, sports, amusement parks, theaters, and all their kind covet his patronage. If he longs for learning, he may visit libraries, museums, art galleries, and other study centers or invest in books and periodical literature. An endless number of goods to provide for the comfort, diversion, or luxurious living of consumers are pouring out of the workshops of producers every day. Only Aladdin's lamp, not their developed technique of production, could conjure up such abundance and variety of goods for the consumers of past ages. But the magic of modern production with its low unit costs has brought goods within the range of choice of the poor that would once have been regarded as luxuries or idle fantasies by the well-to-do and rich. The state of the industrial arts and the whole technology of production of a given time and place determine both the number and the quality of goods that consumers may possibly choose.

SIZE OF INCOME

Within the limits set by the technical arts, the most powerful single force controlling the individual's consumption is the amount of purchasing power at his command. For only a negligible percentage of persons is purchasing power so ample that it does not restrict consumers' choice. Most people need to economize; they must weigh carefully, at least in making their major outlays, the advantages and disadvantages of a proposed expenditure. The expenditure of a person's income normally reveals his standard of living.

It is important in this connection to recognize the influence of both the actual and the ideal standard of living. The former may

be a matter of necessity; the latter, of aspiration. A person's actual standard of living may or may not be his ideal. The actual standard of living is revealed by a person's mode of life, the totality of his habits of consumption. It is sometimes called the scale or level of living. A person's ideal or desired standard of living is expressed by the scale of consumption of the social group or class to which he belongs or aspires to belong. Included within a person's standard of living are the number and kinds of goods which he normally buys without raising any question concerning the wisdom of making or foregoing the purchase. When he considers them necessary to his position in life, they are part of his standard. Both the actual scale and the desired standard of living influence the precise allotment of consumer's choice within the limits of the available income. It seems as yet to be characteristic of modern life that the standard of living advances readily with increases in income.

On the basis of income, and the standard of living which a given income permits, people may be divided into various groups. Differences in income lead to a horizontal economic stratification of society. Many studies have strikingly shown how exceedingly limited is consumers' freedom of choice, particularly at the lower income levels. The chief purpose of such investigations has been to formulate a standard of living that could be regarded as just and fair, and capable of realization. The cost of maintaining such a standard at any given time and place can be easily computed when the quantity of goods required for it is known. All these studies have shown that very generally at least five income levels can be distinguished.¹ The lowest is the *poverty level*, which "represents roughly a standard of living just above where families receive aid from charity or where they run into serious debt". Another writer describes the characteristics of life at the poverty level as "under-nourishment, overcrowding, deterioration of household equipment and clothing, liability of acute distress with any minor disturbance of the daily equilibrium. The family is either not on a permanent

¹ The description of the first three groups is partly quoted and partly adapted from a report of the United States Bureau of Labor Statistics. (Cf. *Monthly Labor Review*, IX, No. 6 [Dec. 1919], pp. 22-29.) This report sets up a quantity-cost budget necessary to maintain a family of five, consisting of husband, wife, and three children below the age of fourteen.

basis of self-support or it is so at the expense of its physical vigor.”²

The next lowest income group is at the *minimum of subsistence level*, “based essentially on mere animal existence and allowing little or nothing for the needs of men as social creatures”. Consumers at this level have no money with which to meet any costly emergencies, and if they purchase any relatively expensive sundries, they must do without some much more necessary goods.

The third income level may be described as the *minimum of health and decency level*. It is this level which the United States Bureau of Labor Statistics, in the study cited above, sets forth as the bottom level “below which a family cannot go without danger of physical and moral deterioration”. Life at such an income level is far from ideal, but consumers’ choice is not as harshly limited as in the other two groups. Expenditures to gratify some of the higher wants need not be made at the expense of basic necessities, the consumption of which should not be curtailed. The minimum of health and decency level includes a “sufficiency of nourishing food for the maintenance of health”; sanitary housing; “the upkeep of household equipment”; clothing “of a sufficiently good quality to be economical” and respectable; and “a minimum of essential sundries”, including street-car transportation, some insurance, medical and dental care, contributions, amusements, and some education.

Beyond these three minimum groups—the poverty group, which is on the verge of constantly slipping over into pauperism, the mere subsistence group, and the minimum of health and decency group—at least two other income groups must be distinguished. These are the groups of consumers that we find at the *moderate income level* and at the *level of affluence*. Life at the moderate income level is very much easier than at any of the three lower levels. The range of consumers’ choice is much wider. Greater freedom from economic pressure shows itself in expenditures for better clothing and housing and most of all in greater outlays for desired sundries. Consumers at the level of affluence are usually not worried about any budgetary problems; they have income sufficient to cover all contemplated expenditures. Obviously, real freedom of consumers’

² P. H. Douglas, C. N. Hitchcock, and W. E. Atkins, *The Worker in Modern Economic Society* (Chicago: The University of Chicago Press, 1923), p. 283.

choice is sharply limited by the particular income level of a given group of consumers.

That much the larger part of the people of every country live at the lower income levels is strikingly shown by all the quantitative studies that have been made into the distribution of income. A British study of a generation ago declared: "The great fact emerges that the enormous annual income of the United Kingdom is so badly distributed amongst us that, out of a population of 43,000,000, as many as 38,000,000 are poor. [The study showed these to be members of families having annual incomes of less than \$800.] It is no longer incredible that in a population of 43,000,000 people enjoying an aggregate income of \$8,325,000,000 there exist 30 per cent living in the grip of perpetual poverty."³ Even in the United States, where, economically speaking, life is easiest, it is conspicuously true that the greater number of people live at the lower income levels. The National Bureau of Economic Research points out that for 1918 "to include five per cent of the income receivers, we have to descend to incomes of \$3,200-\$3,300. To include ten per cent, we must take in part of the \$2,300-\$2,400 class; and to include twenty per cent we must include part of the \$1,700-\$1,800 class."⁴ This means that almost eighty per cent of the income recipients had incomes amounting to less than \$1,700-\$1,800 per year. Another study of the National Bureau of Economic Research made by Mr. Maurice Leven shows that in 1919, 1920, and 1921 fully 98 per cent of the population of the United States depended upon family incomes smaller than \$5,000 each.⁵ Such quantitative studies conclusively show that size of income is the limiting factor in consumers' freedom of choice.

STATUS OF CONSUMER AS TO KIND AND DEGREE OF WANT-SATISFACTION

There are few people, indeed, who never want to use their income for some of the luxuries of life, for things that are quite be-

³ L. G. Chiozza-Money, *Riches and Poverty*, 3d ed. (London, 1906), p. 43.

⁴ *Income in the United States, Its Amount and Distribution, 1909-1919* (New York: Harcourt, Brace and Company, 1921), I, 147.

⁵ *Income in the Various States* (New York, 1925), pp. 291-293.

yond their ordinary standard and scale of living. It may be fine furs, costly jewelry, an expensive style of automobile, or anything else that is outside the normal range of one's expenditures. Most people at some time or another experience an irresistible desire "to have a fling". It may not amount to very much when judged by conventional standards, but for a passing moment, at least, it enables them to escape from the drab humdrum of their routine spending and living. On the other hand, there are those with whom the desire for luxuries is a matter of "conspicuous consumption" (in the fine phrase of Thorstein Veblen).⁶ Lavish expenditures attest their ability to spend and proclaim their economic and social status. This desire for luxuries is a force to be reckoned with when accounting for consumers' choice.

Nature of luxury. Sharp differences of opinion often exist with reference to classifying a given good as a luxury or a necessity. To say, as one writer has, that luxury is "excessive personal consumption"⁷ is immediately to raise the question, When is consumption excessive? To say that "luxury in its ordinary acceptation means anything that satisfies a superfluous want"⁸ is at once to plunge the inquirer into the difficulty of determining when a particular want is superfluous. Such difficulties raise the question: Is it possible to formulate a definition of luxury that is at once universally applicable and generally acceptable? In partial answer to this question, it must be said that it is at least quite impossible to draw a hard and fast distinction between luxuries and necessities. The dividing line between the two constantly shifts. There is no one class of goods that to all persons and at all times are luxuries, all other goods being regarded as necessities. It is a well-known fact that what one regards as a necessity, or at least a comfort or decency, another may consider a luxury. To an American farmer an automobile may seem a necessity; to most Europeans, also living on the land, it seems the height of luxury. In the experience of the

⁶ *The Theory of the Leisure Class* (New York: The Macmillan Company, 1912), Ch. IV.

⁷ Ely *et al.*, *Outlines of Economics*, 5th ed. (New York: The Macmillan Company, 1930), p. 150.

⁸ Charles Gide, *Principles of Political Economy*, tr. from 23d French edition by Ernest F. Row (New York: D. C. Heath and Co., 1924), p. 495.

same individual, moreover, goods that at one time seemed remote luxuries come in the course of time, perhaps, to be necessities. More rarely does it happen (and yet the World War repeatedly demonstrated the fact) that goods once established as necessities are again placed in the class of luxuries. All of which goes to emphasize the relativity of luxury. It is the person and the time, and not the specific character of the good, that makes a good a luxury or a necessity. As long as there are different social classes with varying standards of living, it seems impossible to arrive at any consensus of opinion as to what constitutes luxury. Each individual, reflecting the standards of his group, regards the goods that make up his customary mode of living as necessities, and considers as luxuries only those goods that are ordinarily beyond his ability to buy.

For a short time the World War gave us a more absolute standard of luxury. The following admonition on a British poster illustrates the point.

You are helping the Germans when you use a motor car for pleasure, when you employ more servants than you need, when you waste coal, electric light, or gas, when you eat and drink more than is necessary to your health and efficiency. Set the right example, free labor for more useful purposes, save money and lend it to the nation, and so help your country.

Wherever the pressure of the War came to be felt, there people became inclined to regard all goods that did not contribute to the winning of the war as luxuries, and to condemn their consumption.

The war situation, however, was abnormal, and any standard of luxury based upon the necessity of winning the war is inapplicable under normal conditions. Dissatisfied with a purely relative conception of luxury and desiring something more definite and objective, some writers have tried to define luxury in terms of goods in excess of a stipulated standard of living. The stipulated standard always includes as a minimum the basic necessities of food, clothing, and housing, and usually provides for some things besides, such as some educational training and recreation. To define luxuries in excess of an accepted minimum standard of living assuredly provides a tangible test, but it is still relative—relative, that is, to a more or less arbitrarily established standard of living.

Alleged justification of luxury. To label a certain good a luxury is not necessarily to condemn the consumer who chooses to buy it. We may very properly hope that it will become increasingly possible for larger numbers of people than are now doing so to buy and to enjoy some of the luxuries of life. Some of the reasons, however, that are very generally offered in justification of spending money for luxuries do not bear very close scrutiny from an economic and social point of view. How often people in defending themselves against some direct or implied criticism of their expenditures say substantially this: "After all, the money is ours. Why may we not do with it as we please? If we choose to spend it in decorating our houses with orchids every morning, or in supplying our tables with rare delicacies, or in maintaining expensive cars and yachts, whose concern is it other than our own?" This argument, that people may do with their money whatever they please, and that their expenditures are of no concern to society, ignores the fact that the present income of no nation is sufficient to satisfy all of its wants both basic and trivial. In the markets of the world a dollar is a dollar regardless of who holds it. If the rich holders of dollars demand luxuries, luxuries will be produced, for supply follows demand. While the rich may be amply able to afford any luxury they desire, the bigger question often is: Can society afford to have them spend their money in that way? The dollars of the rich no less than those of the poor requisition materials and services and tie them up in industry. In times of national emergency, like war, such industries may prove to be non-essential; and even in time of peace they may represent a deflection of capital and labor from the production of goods of greater importance to larger numbers of people. To defend expenditures for luxuries on the ground that such expenditures are the private concern of the spenders only is to ignore the fact that at present there are not enough productive resources to satisfy all wants however inconsequential.

Again, it is often said that, since expenditures for luxuries put money into circulation and consequently make work for people, they are socially desirable. New Year's Eve celebrations, particularly in our large cities, usually involve in the aggregate a lavish expendi-

ture of money, most of which goes for luxuries. Such celebrations of course do make work for some people and are eagerly welcomed by them. Dressmakers and tailors, hair-dressers and barbers, caterers and waiters, decorators and florists, chauffeurs and bell-boys, perhaps detectives and policemen, find additional work or new employment as a result of these celebrations. They do put money into circulation. The tradespeople immediately affected are benefited. But if the purpose of these celebrations were only to make work for people, that end could be accomplished much more effectively in other ways. The money might be given to the poor who could buy necessities with it, which would also make more work for someone. It could be invested in productive industries needing expansion, which would provide additional or new employment for others. It would not be the same people, to be sure, but who will say that those engaged in the production of necessities are not even more deserving than those employed in the creation of extravagant luxuries?

Real justifications of luxury. But it is possible to offer a much stronger defense for choosing luxuries than those just considered. If the desire for luxuries stimulates economic effort, and if it tends to elevate tastes, much can be said in favor of the gratification of such a desire. Primitive people with few wants, and these of a kind that can be easily satisfied, are usually not noted for high productive efficiency. It is the inclusion of luxuries in their standard of living that quickens effort and causes them to rise in civilization. There are people today who are spurred on in their productive and acquisitive activities by the hope of commanding luxuries whenever they desire. Who will say that in such cases the desire for luxuries is not socially useful?

Unquestionably, too, the gratification of the desire for luxuries may result in the elevation of tastes and so prove a useful educational agency. Beautiful pictures on the walls of our homes are not indispensable. Doubtless they may be classified as luxuries. But they contribute very largely to the esthetic enjoyment of people and constitute a standard of enjoyment that we may well hope may become more general.

SOCIAL STIMULATION OF WANTS

The wants of the consumer, and consequently his choices in the market, are very largely socially influenced. Social stimulation of wants varies all the way from the most indirect and subtle suggestion to a frontal attack upon the consciousness of the consumer by constant advertising and persuasive salesmanship. Earliest and most continuous among the social factors stimulating and moulding the want of the consumer is *custom*. Customs descend from generation to generation. Children learn to imitate their elders while their own critical powers are as yet undeveloped. Habits in the individual are to some extent a reflection of the customs of the group. The world over, in matters of food, costume, and mode of living, custom is a powerful force shaping habits of consumption and standards of living.

But great as is the domination of custom over the consumer in some respects, the sway of *fashion* in others is quite as important. Some consumers adopt the latest fashion (however it may have originated) for the sake of being among the first to display the new. Others bow to the decrees of fashion because they do not wish to be conspicuous by their non-conformity. Fashion to a greater or lesser extent permeates virtually every phase of consumption, but it is perhaps most conspicuous and dictatorial in matters of clothing, particularly for women. Men's clothing does not escape the sway of fashion, but the cycles of changes are longer and non-conformity is not so conspicuous. The choices of consumers for such goods as clothing, home decorations, and even house architecture and automobiles are stimulated by the vogue of the moment. Custom and fashion together account for a large percentage of the choices of the consumer. In different aspects and relations of life we all respond to the stimulus-suggestion both of the old and of the novel.

The most important social agency for the stimulation of new wants in the individual is *education*. If the roots of education be in the ancient cultural traditions, it may merely serve to reinforce the influence of custom. But if education is based upon the best that careful scholarship, scientific and humanistic, has achieved, it is bound to liberate the individual and to stimulate new wants

within him. Education of this kind is apt to reveal the inadequacy of the old and to create a desire for something better. New wants are stimulated not merely by formal education but also by such other educational agencies as the press, motion-pictures, and travel.

The most direct and insistent means, however, for the social stimulation of wants is furnished by *advertising* and *salesmanship*. Few indeed there are who do not sooner or later, perhaps even unknown to themselves, fall under their suggestive influence. Effective advertising is partly based upon the psychology of repeated suggestion. The cursory reading of a single advertisement may or may not leave a distinct impression upon the reader's mind. What appeal it had, if any, may be lost. The clever and persistent repetition of a given advertisement, however, in the long run usually overcomes "sales resistance" and may make the consumer a partisan of the cleverly advertised good. The cumulative effect of national advertising slogans such as "Eat soup and keep well", "Get a lift with a Camel", and "Keep that schoolgirl complexion", of constant reiteration of the statements "They satisfy" and "Eventually—why not now?", of repeated display in magazines and posters of the allurements of cosmetics, the open-door invitation of some elegant waiting automobile, or the merits of books and study courses in increasing one's earning capacity is to awaken wants for such goods in susceptible individuals. It has been suggested that some of the post-war difficulties of the leather industry are due to the clever advertising of rubber heels which resulted in the sales of tens of millions of pairs, with an equivalent loss of business to the leather industry. On the other hand the fur industry is said to have prospered because its agents have succeeded in inducing women who want to be in fashion to wear furs in summer.

In a more limited way skilful salesmanship accomplishes the same results as clever advertising. While the appeal of the latter is impersonal, the appeal of the former is highly personal. An expert salesman through judicious suggestion not only helps the buyer to reach a decision as to what good to buy but frequently persuades him to buy goods that he had not thought of buying.

Advertising is so extensive and marketing is so aggressive that some people are inclined to think that consumers' choice is fictitious

or at most nominal, not real. It is estimated that more than \$1,500,000,000 is annually spent in the United States for advertising. A most elaborate marketing organization has been built up. With ubiquitous advertising by day and by night, with "high-pressure salesmanship", with "fall openings", with special "sales" for every month in the year, with "selling campaigns" for this and for that, what chance has the ordinary consumer to express his own judgment? It does often seem as if consumption were merely incidental to production; as if the producer were more concerned with developing markets for his goods than with satisfying the wants of the consumer. Certain it is that the consumer in our modern exchange economy occupies no such position as he held in the custom-order stage, when he virtually initiated all production. He is no longer king upon a throne issuing orders. He is subject to a bombardment and barrage of suggestions from producers, which seemingly often leave him little real liberty of choice. While there is much truth in this view of the position of the modern consumer, it must not be overlooked that most advertising is competitive. Much of it represents the antagonistic effort of rival producers. For the consumer there is still some safety in numbers. While producers may seek to convince and persuade, to cajole or coerce the consumer, in the end when they have used all their devices it is still true that the consumer must make the final decision. And he usually has alternatives among which to choose. In spite of strong social stimulation of wants and social influence over decisions concerning their gratification, this much freedom still remains for the consumer.

FORMAL SOCIAL CONTROL

Under normal conditions in modern economic society the consumer's freedom of choice is nearly unrestricted, as far as any external authority is concerned. He is free to buy or not to buy, as his judgment prescribes and his purse permits. What control exists is control by price—the ability to pay the necessary price. But at times there has been and is substituted control by public authority. In the past laws have sometimes sought to regulate what men shall eat and wear. Such sumptuary legislation was once used to establish and to

maintain class lines. An old French regulation, apparently designed to differentiate between the bourgeoisie and the upper classes, stipulated that "No bourgeois, man or woman, shall wear green or gray, or ermine, and they shall dispose of those they have, by a year from Easter next. They shall not wear, nor will they be able to wear, gold, precious stones, or coronets of gold and silver."⁹ Certain communistic societies have tried to regulate the dress and mode of living of their members. Even in modern industrial society in time of peace there has been some restriction upon the consumer's freedom of choice. The eighteenth amendment to the Constitution of the United States, for example, and the enforcement statutes growing out of it, sought to restrict, if not completely to prohibit, the consumption of alcoholic liquors.¹⁰ Sumptuary legislation is almost always unpopular because it is regarded as interference with personal liberty and consequently is hard to enforce.

It remained for the World War period, however, both in Europe and in America, to give us a gigantic demonstration of social control over consumption. The issues in that struggle were so stupendous and operations were on so large a scale that the war required the complete mobilization not only of the fighting forces of the nations but of the peoples themselves. There were mistaken leaders who proclaimed the doctrine of "business as usual". No slogan could have been more economically fallacious. It was based upon the false assumption (if it was based upon anything at all) that there were material resources and man-power enough to meet all of the ordinary demands of peace as well as the extraordinary demands of war. But the unusual conditions of war-time soon compelled the curtailment of expenditures for non-essentials in order that the essentials for successful prosecution of the war—ships, food, supplies, and munitions—might be forthcoming in sufficient quantities. The World War proved a stern taskmaster compelling people to learn self-restraint and forcing them to abandon "business as usual". Ger-

⁹ Jérôme A. Blanqui, *History of Political Economy*, Eng. trans. (New York, 1880), p. 175.

¹⁰ Directly the amendment declares that "the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof, for beverage purposes is hereby prohibited". The purpose of such prohibition, however, was to restrict consumption.

many and France quickly saw the necessity of shutting down their non-essential industries and of transferring workers to industries essential to the winning of the war. England and the United States were much more dilatory in recognizing the need of completely readjusting their industries to war conditions. Both voluntary control and direct public regulation of consumption became necessary. In the United States we had sugar-less meals, wheat-less and meat-less days, some gasoline-less Sundays, and in industries where it could be done some coal-less Mondays. In such ways we conserved our resources, thereby making them available for other peoples needing them more vitally, or for other purposes in which they were more indispensable. It is doubtful that the world ever before witnessed on so large a scale a demonstration of voluntary control over consumption as during the World War period. But great as it was, voluntary control was not enough. It is hard for the ordinary consumer to see all the ulterior consequences of his purchases; how they help to tie up labor and materials in industries that perhaps ought in war-time to be operating only part-time, if at all. In consequence voluntary control had to be supplemented by government regulations. A number of administrative boards were created, with far-reaching influence and power, for the purpose of so readjusting normal economic relations as to eliminate waste and to subordinate the consumption of non-essentials to the single task of winning the war.¹¹

Such direct social control over consumption is tolerated during war because it is recognized as necessary for the achievement of a supreme purpose. In peace no such compelling purpose exists, and in consequence sumptuary legislation and control are reduced to a minimum.

¹¹ Among the more important of such boards in the United States were the Food Administration, the Fuel Administration, the War Industries Board, the War Trade Board, and the Shipping Board.

CHAPTER XXVII

SPENDING AND SAVING

Most of the spending for consumers' goods in the United States is done by women, who learn the art of spending in the school of experience. There is little formal instruction or expert guidance. While constant practice together with economic necessity results in the development of considerable skill, the consumption needs of the average household are too small to warrant engaging the services of professional purchasing agents, such as many institutions, governmental units, and business enterprises regularly retain on their staffs. Buying is apt to remain the work and play of millions of individual consumers, who may or may not develop any special aptitudes for it. Moreover, while buying by professional experts would doubtless result in very great economies and in improvements in the quality of goods bought, it would deprive consumers of what pleasure there is in making their own selections and in general of spending their money as they please.

FINANCING CONSUMERS' EXPENDITURES

In the long run, the expenditures of consumers must come out of their incomes. Temporarily, however, necessity may compel people to draw on their accumulated and invested capital, provided they have any and it can be converted into cash. But the income that finances the expenditures of consumers is both present and prospective. The United States Department of Commerce has conducted a series of investigations into the extent of retail credit. One such recent study covered 415 retail establishments in thirty cities, the semi-annual sales of which amounted to \$387,444,542, July to December, 1932. The investigation revealed that, of the total volume of purchases made, 47.6 per cent were made for cash, 42.5 per cent on open credit, and 9.9 per cent on an instalment basis.¹ The

¹ United States Department of Commerce, *Retail Credit Survey, July-December, 1932*, p. 1.

practice of buying goods on credit is very much more prevalent in acquiring some kinds of goods than it is in acquiring others. Purchases of pianos and radios, household furniture and appliances, fur coats, and automobiles are commonly financed with the aid of credit, either open or instalment.

The use of credit for present consumption puts a lien on future income. If the credit obligations thus created are promptly and quickly met, the extension of credit is not only a convenience but a stimulus to business. But when consumers with uncertain or irregular incomes become parties to long-term credit transactions there may be danger ahead for both them and their creditors. Buying now and settling by a series of partial payments in the future, which is the essence of the instalment buying or credit plan, affords consumers the opportunity to enjoy desired goods without waiting for the accumulation of the entire purchase price. But it also means assuming prior obligations which will greatly restrict future liberty of economic action. Since the cost of purchasing goods on the instalment payment plan is generally higher than when purchased for cash or on an open credit account to be settled "the first of the month", it is obvious that consumers should proceed cautiously in the number and amounts of their financial commitments of this sort. It is a sound rule in making purchases by this method to buy only the more permanent and valuable goods which will continue to afford utilities to the consumer after the instalment payments have all been made.

In charge accounts or open credit sales, and also in instalment credit sales, credit is extended by the seller. Only a relatively small percentage of consumers' expenditures is financed by means of loans from the regular commercial banks. Some of the expenditures of a surprisingly large number of consumers (estimates run as high as 15,000,000 borrowers) are annually financed through the small loan agencies. In 1932, for example, an investigation showed that the small loan agencies of all kinds made loans aggregating \$3,616,500,000.²

It is apparent from the volume of business done and from the

² Evans Clark, ed., *The Internal Debts of the United States* (New York, 1933), p. 312.

number of applicants for loans that the small loan companies render a necessary service. If it were not for them, pawnbrokers and their kind would handle even more business than they do. Social workers, generally, regard the small loan agency as indispensable to our credit system as now organized. But the rates are high. Charges as high as $3\frac{1}{2}$ per cent per month, or 42 per cent per year, have been legally authorized and commonly made. The alternatives have usually been the pawnbroker, with even higher charges, or no loans at all, no matter how necessitous the circumstances. Such businesses require ceaseless surveillance by the state to prevent the imposition of unnecessary burdens upon consumer-borrowers who have no other access to loanable funds. The state, too, may very properly extend its aid in developing sound credit agencies to render this socially necessary service at lower costs.

PROTECTING CONSUMERS IN THEIR SPENDING

Financial help to make desired expenditures is not the only kind of aid the consumer needs. He also needs education, guidance, and protection in the spending of his money. But one of the oldest rules of the market-place is *caveat emptor* ("let the buyer beware"). The principle of *caveat venditor* ("let the seller beware") has only recently received legal sanction in the marketing of some goods.

The much too common ignorance of the consumer, no matter what his or her native and developed intelligence in other respects may be, is of momentous consequence to our economic life. It is responsible for many of our most objectionable selling methods, for the almost endless duplication of brands each with its partisan purchasers, and for the investment of much capital and energy. And yet in some respects the consumer is hardly to blame. How can he be expected to know either the quality or the relative value of many goods competing for his money? Superficial differences in quality may be easily detected, but unfortunately many, if not most, important qualitative differences in goods are not apparent on the surface. And in the bewildering variety of choices offered in many lines at a wide range of prices, how many consumers can say with any real assurance that a certain article is worth the difference in

price of 25 per cent, or 50 per cent, or 100 per cent relative to another article sold in competition with it? The average consumer has neither the expert knowledge nor the testing facilities properly to appraise both the quality and the price of many of the goods he buys. In so common an article of purchase as clothing, misrepresentation and deception have always been easy. In garments offered as "part wool" or "part silk", how many consumers can be at all sure of their judgment as to the relative amount of mixture or substitution of the much cheaper cotton or rayon? In the marketing of furniture, veneers over cheaper woods are so much more prevalent than solid walnut or mahogany or oak, for example, and imitations of all sorts are so much more common than the highly prized woods that consumers are easily misled. Imagine the chances of unaided newlyweds, totally inexperienced in buying furniture, of making discriminating purchases in quality and price. It takes a connoisseur to judge the merits of Oriental rugs at the prices offered. But if only such experts were to buy, trade would languish and many consumers would be deprived of much enjoyment. Few consumers have either the knowledge or the experience properly to appraise the value of an automobile (or are apt to get either) for after all the number of motor-cars bought in the average consumer's lifetime is very limited. The best refuge of the inexperienced consumer in all such business transactions is to deal only with honest and reliable merchants who are interested in retaining his good-will and patronage.

What the consumer needs to protect himself is education and the wisdom that comes with experience. There is no substitute for this, no matter how much help he may be given or how many safeguards may be thrown about him. While most of this education will doubtless continue to be informal and experimental, some more formal instruction is beginning to be available. Widespread advice in budget-making, with its percentage of income allotments to various classes of expenditures so as to maintain a desirable balance, has been distinctly helpful. Some of the courses in home economics, and also the more generalized courses dealing with the economics of consumption, are making consumers realize that spending is an art, which only the painstaking can master.

Many consumers have come to realize the need of expert guidance in making their purchases. On a very limited scale it is possible to engage the services of professional "shoppers", or to subscribe for the services of an organization which specializes in analyzing the relative merits of competing consumption goods and in supplying consumers with accurate information on which to base decisions to buy or not to buy. Telling the truth in advertising, including giving accurate descriptions rather than fulsome praise, is of the greatest possible help to the consumer. Fortunately, the movement to tell the truth in advertising has made and is making commendable progress. The Better Business Bureaus, functioning in many of the larger cities of the country, and the National Better Business Bureau, which is a federation of them all, are rendering the consumer valiant service in sponsoring respect for the truth in advertising and fair practices in all merchandising. The Better Business Bureaus have taken up the cudgels against deception of the consumer in all its forms. They have furnished information and sounded warnings which have prevented some consumers from making costly mistakes or have guided them to wiser choices. But if surveyed as a whole the great field of consumer guidance is still largely virgin territory.

Of the greatest help to the consumer in the spending of his money have been various forms of protection given him by the government. One of the earliest of such aids was the regulation of weights and measures. Without standardization in this respect, deception was easy. But with standardization, short weights and measures were outlawed under both State and national statutes. Government inspectors were provided whose business it is to detect any violations of the law. Curiously enough, however, in spite of the obvious need of such protection of buyers, many goods are still sold in containers or other measures that are not standardized, or not regularly inspected for accuracy. Many governments, for example, do not check the accuracy of the gasoline pumps that dot their highways. So common an article of consumption as a loaf of wheat bread varies distinctly in weight at different times and places.

Another form of governmental protection is afforded by various measures designed to prevent the exploitation of the consumer through selling him adulterated products or goods that are other-

wise misrepresented as to quality. The Federal Pure Foods and Drugs Act, which dates back to 1906, seeks to exclude from interstate commerce adulterated or misbranded foods and drugs. It tries to protect the consumer by restricting the volume of business in such commodities. The Federal Meat Inspection Act prohibits interstate commerce in meats which do not conform to the standards set up by the government. Unfortunately, except as comparable legislation regulating intrastate commerce has been passed by the several States, the consumer is still without adequate protection. It is the practice of some States to require the periodic testing of dairy herds for tuberculosis and to condemn cattle which cannot pass the test. Similarly, some cities prescribe quality standards for the milk to be sold within their limits. The government has also done a good deal, although it could do much more, in setting up reasonable standards of quality and in classifying goods into definite grades. The marketing of many agricultural products, including wheat and cotton, fruit and butter, has been influenced to the advantage of the consumer by the use of such governmental standards. While the use of governmental grades and standards could easily be made mandatory, as a matter of practice it is generally voluntary. But the voluntary acceptance of standards, like the voluntary acceptance of a code of fair practices in industry, is of great importance. The demand for quality goods is apt to be stimulated and the supply of inferior products may be curtailed because it proves less profitable or even unprofitable to market them. Both the development of demand for goods of quality and the curtailment of supply of inferior products operate to the advantage of the consumer.

At times and under certain conditions the government attempts the more difficult task of fixing or regulating prices in order to protect the consumer. The intervention of the government in price-determining operations occurs much more frequently and extensively than is commonly supposed. When the government owns a public service enterprise, such as the postal system or a municipal water-works, the task of price-fixing is relatively simple. Usually in such cases, charges to the consumer are fixed at the lowest possible price consistent with rendering efficient and continuous service. The government not only fixes the prices of publicly owned

enterprises but also regulates the prices of the privately owned public utilities, such as the rates of railways and of electric light and power companies. The fact that such businesses are natural monopolies, having it within their power to exploit the consumer, is the occasion for the exercise of regulatory powers by the government on behalf of the consumer. Occasionally in times of national emergency, such as war or a severe depression, the government is called upon to regulate still other prices, which are normally left to the free operation of market forces.

Education, guidance, and protection with reference to the quantity, quality, and prices of goods bought are the needs of consumers in the spending of their money. Consumers are the most important unorganized group in modern economic society; consequently, these educational and protective measures are essential if their economic interests are to be properly safeguarded.

THE NEED FOR SAVING

Upon the shoulders of ultimate consumers rests the responsibility not only of making wise purchases so as to get their money's worth and keep the wheels of industry turning, but also in normal times of saving part of their incomes for future needs.

Saving is an indispensable condition for the greatest economic progress of both individuals and nations. As long as the energies of an individual must be concentrated upon the single task of meeting the subsistence demands of today, there is neither opportunity to develop nor leisure to enjoy the finer things in life. But when men succeed in producing more than they use for immediate consumption, wealth begins to accumulate and gradually the severity of the struggle for a living is somewhat softened.

Individuals need to save and do save for a variety of reasons. It may be to accumulate a sum of money for some relatively large purchase, such as a house; or to provide for future contingencies, like sickness; or to supply means for the education of children; or to be financially independent in one's old age. Whatever the reason, the accumulation of a surplus, as a sort of financial backlog for the home hearth fires, is highly desirable in every individual's economy. The

pity is that so few have been able to obtain it. It is said that 90 per cent of all persons over sixty-five years of age are dependent upon others for their support. Statistics common in life insurance circles show that of 100 men starting life with about equal opportunities at the age of twenty-five, forty years later only one is rich, four are well-to-do, five are still at work, thirty-six have died, and fifty-four are dependent upon others for their support.

A nation, no less than an individual, in order to make economic progress must produce more than it consumes. It is such a surplus, created by the efforts of many individuals and business units, that supplies a nation with capital for the expansion of old enterprises and the development of new ones. Since productive equipment of all kinds is constantly wearing out, much of the wealth produced annually must be used to replace worn-out agents of production. Wealth so appropriated merely keeps intact the capital equipment of society. It provides for the steady and unavoidable depreciation of capital involved in every productive operation. The saving that makes for economic progress means something more than this. It represents the surplus of wealth produced over current expenditures, including all necessary capital replacements.

Necessary as saving is to individual and social progress, it is often exceedingly difficult to know where to draw the line between consumption and saving so as to ensure the best results for both the individual and society. It calls for nicety of judgment to steer one's course safely between the Scylla and Charybdis of penuriousness on the one hand and extravagance on the other. To strike either is to shipwreck life or fortune. When saving for the future is done at the expense of present needs for physical and mental development, it may jeopardize the very future for which it seeks to provide. The penurious individual may lose capacity to enjoy the future. Often it is better to spend than to save. But when spending in the present is extravagant, recklessly unmindful of individual and social needs in the future, it is equally perilous. The prodigal spender may be without substance in the future, and in the meantime he contributes nothing to the accumulation of capital, upon which economic progress so largely depends. From a social point of view the gay spend-thrift does not deserve the popularity which he enjoys. Neither does

the miser deserve all the calumny that is heaped upon him, for money saved is usually also spent. The difference between income spent and income saved lies in this: the former is spent for consumption goods while the latter is normally spent for production goods. The individual thinks of the income he has saved as being invested rather than spent. From his point of view this is true, but it is equally true that in most cases the invested savings of an individual are directly or indirectly spent for goods that will increase the future production of wealth.

Both individually and socially, saving is essential to security and progress. But individually and socially, too, saving may be carried too far. In an individual's economy saving is excessive when it means stunting one's present development for the sake of providing for a future which may never materialize or find one unable to enjoy it. Socially, saving is excessive when it is impossible to find relatively secure and desirable forms of investment.

FORMS OF SAVING

There are two important forms of saving in the economy of both individuals and nations. The one may be designated as conservation, and the other as accumulation. The latter is the more common meaning conveyed by the term "saving", but the former is also of the utmost significance.

Saving as conservation. If an individual makes want-satisfying goods last as long or reach as far as possible, he conserves their use. Conservation does not mean to withhold from use, but it does mean to procure the most economical use of a good. Anyone who helps to eliminate waste in production, as well as anyone who practises conservation in consumption, is rendering service that is a form of saving. The elimination of stupendous waste in the use of such natural resources as coal and minerals, forests and running water, is conservation. The substitution of sunlight for artificial light in some places, by the simple device of moving the hands of the clock forward one hour during the summer months, is conservation. (Such daylight saving, both during the World War and since, has proved more acceptable in industrial centers than in the rural dis-

tricts, where work had long ago been adjusted to synchronize with the movements of the sun.) Cooks blessed with imagination and grown wise through experience are among society's greatest conservationists. The efforts of all producers and consumers in conservation result in no inconsiderable amount of saving.

Saving as accumulation. But the more usual meaning conveyed by the term "saving" is not so much economy in consumption as the postponement of consumption. In the case of many saving individuals, the consumption is permanently postponed. Since saving today is predominantly made in the form of money or its equivalent, many people prefer never to exercise their rights to spend the principal sum at all, but instead to be content with spending the income which it yields.

Income that is saved rather than spent may be either hoarded or invested. Whether an individual hoards his surplus or invests it, he foregoes, for the time being at least, his undoubted right to convert it into consumption goods. Silas Marner typifies the hoarder for every English-speaking boy or girl. Every night when his day's weaving was done, he drew his shutters, bolted his door, and from a hole beneath his floor drew forth the bags which contained all that gave meaning to life for him. He loved to pour the gold upon the table before him, to pile the coins into stacks, and to feast his eyes upon the symbols of his toil. His hoarding was saving, even though it was not the kind that promotes the greatest economic good. Of a similar sort was the hoarding of the one-talent man of the biblical parable, who hid his talent of silver in the earth and gave it back to his master upon his return. But the master condemned him as a wicked and slothful servant and told him that he should have placed the money with the exchangers, so that the master might have reclaimed his money with usury.

A different sort of saving was that of the five- and of the ten-talent servants. These two invested their talents of silver in trade, and each made 100 per cent on his investment. Savings today are almost always invested rather than hoarded, but the usual rate of return is much lower than that of the well-known parable.

While the process of saving takes the form of either conservation

or accumulation, the goods that are saved are both consumption goods and production goods. It is reasonable to assume that saving began with the accumulation of such consumers' goods as could be preserved for future use. With the accumulation of producers' goods, man greatly improved his equipment for future production and simplified the problem of getting an increasingly better living. While from the social point of view saving consists in producing more commodities than are consumed, the individual's savings are usually expressed in money or its credit equivalent. They represent his claim upon the existing supply of consumers' or producers' goods, as well as upon the supply of goods to be created in the future.

SOURCES OF SAVINGS

Accumulated private savings, in the form of investment funds, are derived from two principal sources: business surplus, which represents that part of the net earnings of a business that is not distributed to the owners but is allowed to remain invested in the business; and individual incomes which are not spent for the direct and immediate gratification of wants. The retention rather than distribution of business surplus is a matter of judgment on the part of the owners or their representatives. Saving any part of the income received by individuals is a matter of economy, sometimes calling for great foresight and self-denial. While the available statistics pertaining to the annual income and net savings of a people are at best mere approximations to the truth, it has been estimated that about 15 per cent of the net income of the people of the United States is on the average saved each year. Dr. W. I. King further estimates that "the business enterprises of the country are normally responsible for about forty per cent of the entire saving of the nation."³

A later study by Harold G. Moulton states:

³ This does not include such part of the profits of business enterprises as are paid out to individuals in dividends or otherwise and then reinvested. Cf. "The Net Volume of Saving in the United States", *Journal of the American Statistical Association*, XVIII (1922), 466-470.

The aggregate savings of American individuals and families in 1929, according to estimates made in *America's Capacity to Consume*, were over 17.7 billion dollars, while corporate savings amounted to an additional 2.2 billions. Some of the 'savings' of individuals and families represented direct investments on farms or in other personal enterprises and thus did not result in any flow of money into the investment market. Moreover, a substantial part of the corporate savings was used directly for capital extensions, only a portion entering the market as investment funds. It is thus impossible to state the amount of *investment money* with precision, but our data indicate 15 billions as a minimum figure.

For the years just prior to 1929 we do not have as reliable data as to the aggregate savings. On the basis of figures showing the general growth in the national income, as expressed in monetary terms, between 1922 and 1929, and the known fact that very large profits from speculative activities were realized in the later years, we would estimate that the aggregate savings, including corporate surpluses, gradually increased from something like 12 or 13 billions in 1923 to approximately 20 billions in 1928 and 1929. Making allowance for direct savings in the form of improvements on farms or in other personal enterprises, the amount of *investment money* available in 1923 and 1924 must have been around 8 or 9 billion dollars, as compared with something like 15 billions in 1928 and 1929.⁴

INVESTMENT OF SAVINGS

Since the accumulated savings of most individuals today are made in the form of money or its credit substitute, the safe and profitable investment of savings is a problem of major importance. For those whose principal savings consist in material goods other than money, the problem is simple, as, for example, for the farmer whose net savings may largely consist in the increase of his flocks and herds. For the accumulator of monetary investment funds a great variety of savings institutions and of investment opportunities has been created. All who desire a competence or who aspire to be financially independent some day have occasion to become familiar with the services of savings and investment institutions (such as banks and trust companies), of building and loan associations, and of insurance companies. The savings deposits of the American people aggregate about twenty-five billions of dollars.⁵ Building and loan associations have assets of more than eight billions of dollars to aid

⁴ *The Formation of Capital* (Washington: The Brookings Institution, 1935), pp. 141-142.

⁵ *Annual Report of the Comptroller of the Currency* (December 5, 1932), p. 76. Data presented are as of June 30, 1932.

in owning homes.⁶ Approximately 100 billions of dollars' worth of life insurance is in force.⁷

Savings deposits in banks. Banks exist in part for the custody and investment of savings. Almost everyone who undertakes the process of accumulation in our time makes use of a savings deposit account in some bank. Old-fashioned hoarding is no longer necessary or desirable in countries where political and financial security prevails. While the so-called "commercial" banks exist primarily for the purpose of helping business by making short-term loans, they also encourage the opening of small savings accounts, for which they pay a low rate of interest.

Some banks, known as savings-banks, exist exclusively for the accumulation and investment of savings. They solicit and accept deposits from their customers, invest in high-grade securities and real estate loans, and pay their customers interest on deposits left with the banks a specified period of time. The small savings in millions of deposit accounts, aggregating billions of dollars, are thus made available for conversion into the bonds of conservative private businesses and of governmental units. The number of such banks in the United States is not large; on June 30, 1934, there were 894 out of a total of 15,894, including all types of banks and trust companies.⁸ The number is showing no marked tendency to increase because of the growing "departmentalization" of the commercial banks. It is now very common for commercial banks not only to perform their primary function of facilitating business transactions but also to conduct savings departments and often to affiliate with trust companies or operate trust departments for the carrying-on of business that calls for the services of trustees.

Investments in corporation securities and real estate mortgages. A very popular investment opportunity, particularly for those who are at least somewhat familiar with such matters, is provided through the offer for sale of corporation securities and real estate mortgages. Investment banks, bond houses, stock-brokers, and

⁶ *Statistical Abstract of the United States* (1932), p. 259. Data are for the close of 1931.

⁷ *The Insurance Year Book, 1933-1934, Life Insurance* (Philadelphia, 1933), p. iii.

⁸ *Annual Report of the Comptroller of the Currency for the Year Ended October 31, 1934*, p. 94.

investment companies specializing in real estate mortgages are among the agencies that have been organized to facilitate investments of this type. An investment bank, or other agency doing an investment business, is constantly buying securities at wholesale and selling them at retail. When a large and important new bond issue, for example, is to be "floated", it is usual for a number of the well-known investment houses to coöperate in underwriting the loan (which means to take it) and then to dispose of it in small lots to customers who have savings to invest in such properties. When the Kingdom of Norway twenty-year 8 per cent sinking fund external gold bonds were floated in this country in 1920, such well-known bankers as J. P. Morgan and Company, the National City Company, First National Bank of New York, Guaranty Trust Company, Lee Higginson and Company, and Halsey, Stuart and Company, not to mention nine others, coöperated in selling the issue.

The business of making both safe and profitable investments is fraught with great perils. Reliable investment banks and other agencies render valuable service in giving prospective investors intelligible information and wise counsel. So intricate are the questions involved in the valuation of assets, the interpretation of earnings, the forecasting of future earning trends, and the appraisal of the qualities of management that a distinct business of selling financial advice to investors has developed. Among the well-known agencies offering their investment counsel in return for a stipulated annual fee are Babson's, Brookmire's, Moody's, and the Standard Statistics Company.

Building and loan association payments. Many people of limited means have been greatly helped in solving the problem of home-ownership by converting their savings into shares of stock in building and loan associations. The primary purpose of such associations is the accumulation of a loan fund to aid in financing the building of houses. Members of any association usually acquire their stock through small weekly or monthly instalment payments. When the available funds of the association permit, members may secure loans to defray the greater part of the cost of building, provided the proposed sites are owned free from all debt by the prospective builders.

The borrower-members, for every borrower ipso facto becomes a member, must subscribe for a large enough number of shares so that the aggregate maturing or par value of the shares will equal the amount of the loan. A member borrowing \$5,000, for instance, must make payments on twenty-five shares, the maturing or par value of each of which is \$200. If he regularly pays his dues (which are applied on the stock he has purchased), he will at the maturity of his shares have a capital sum sufficient to extinguish the debt and will own his home free from all encumbrances. The monthly dues are arranged in such a way that part of each payment represents principal and part interest on the loan. Not all of the stockholders of building and loan associations have become such for the ultimate purpose of borrowing capital to build a home. Some persons find it advantageous to become depositing rather than borrowing members by making the usual monthly instalment payments on the shares of stock purchased solely to build up a relatively secure and profitable capital investment. Building and loan associations furnish the opportunity for coöperative saving and lending for home-building purposes. In the United States there were 11,432 such associations in 1931 with assets in excess of eight billions of dollars, and a membership of over 11,000,000.⁹

Insurance as an investment. While insurance is primarily bought as protection against risks,¹⁰ it is also widely used as a means of building up one's estate. In the case of endowment life insurance the insured himself may come into possession of the principal sum of the policy together with its accrued earnings, provided he survives the maturity of the policy. The maturities of endowment policies can be so selected as to return to the insured the proceeds of the policies at any desired age, provided only that the premium payments be regularly paid. In the case of all other forms of life insurance, the estate of the insured or stated beneficiaries receive the amounts of the policies. For the insured the annual premium payments represent a form of saving. For some who find the art of saving difficult to practice, the necessity of being ready to make an insurance premium payment may serve as an effective stimulus to

⁹ *Statistical Abstract of the United States* (1932), p. 259.

¹⁰ Cf. Chapter XVI, "Risks and Insurance".

save. Some people prefer to carry as much insurance as their annual savings permit in order to avoid the responsibility and trouble of making other investments for themselves. In such cases the insurance company functions as the insured's investment banker.

While savings accounts, corporation and government securities, real estate mortgages, building and loan association shares, and insurance represent the larger part of a people's savings, there are still other forms. Some persons put their savings into individual businesses or partnerships; some into real estate in the hope that it will appreciate in value; others into silver foxes, for example, in the expectation that they will multiply; still others into diamonds or Oriental rugs or rare antiques on the chance that over a period of time they will show a handsome profit. Whatever the concrete form of investment chosen for accumulated savings, the investor must satisfy himself on such points as these: Will my principal be safe? Can I count on regular income? Is the rate of income on the investment fair? Is there reasonable chance for the value of the investment to appreciate? Is the investment readily marketable in case personal circumstances or market conditions prompt me to sell?

PART V

THE INCOME AND EXPENDITURES OF
GOVERNMENT

CHAPTER XXVIII

SOURCES OF PUBLIC REVENUE

The preceding parts of this book have dealt with the processes by which men, living in a world of scarcity, obtain the goods with which to gratify their wants. Production is the process of creating these want-satisfying goods. In the process of exchange we are concerned with all the means that have been invented to facilitate the transfer of goods from productive specialists to final consumers. Specialization in production and the resulting need of exchanging commodities and services occasion the process of price determination. And together these processes make possible consumption, the ultimate gratification of human wants. In the description of this flow of goods from producers to consumers, the assumption has been made that for the most part men gratify their wants through individual effort or private coöperation. But increasingly in the highly complex economic life of today men seek to gratify some of their wants through the public coöperative agency represented by government. There is both a private and a public economy. The foregoing discussion of production, exchange, valuation, and consumption has furnished the outlines of our private economy. The discussion that follows will deal more particularly with our public economy. Part V of this treatise deals with the income and expenditures of government, and Part VI with the relation of government to a nation's economic life as a whole.

A public economy, no less than a private economy, is concerned with problems of income and expenditure. That part of general economics which is concerned with the revenues and expenditures of government is sometimes known as public economics, but more commonly as public finance. Part of the income of its citizens and residents the government takes for the gratification of some of the wants they have in common, such as safeguarding person and property. What are the sources of public revenue? What are the principal

forms of taxation? For what main purposes are the public funds expended? How does it happen that public expenditures are often in excess of public revenues, with a resulting deficit that necessitates the flotation of loans and the accumulation of public debts? An answer to these questions will be sought in the following three chapters.

REVENUE FROM GOVERNMENT OWNERSHIP

It is frequently assumed that the easiest and most profitable source of public revenue is furnished by the public ownership of certain enterprises, which are operated as governmental monopolies, either local or national. There is both truth and error in the statement, with a preponderance of the latter. The reason for this is that there is a variety of purposes in the socialization of industries, some of which are in conflict with the revenue principle. Accordingly it is not surprising that most governments have cause for congratulation if their business enterprises do not show a deficit. Given both efficient and honest government, there is no inherent reason why necessary public enterprises should not be operated at a profit, provided the consumer is willing to pay the necessary charges. There are conspicuously profitable enterprises of this sort, such as the governmental monopoly of tobacco in France. But the fact remains that as a source of surplus revenue, available for other governmental purposes, most public enterprises are a disappointment. If a particular public industry shows large profits, there is apt to develop a strong public clamor to reduce the rates or prices to the consuming public. What revenues federal, State, or local governments in the United States have derived from government ownership have come from the public domain and from government monopolies.

Revenue from the public domain. In the days of feudalism the king owned vast landed estates, the income from which furnished a substantial part of the support of the government he maintained. With the emergence of the modern state, however, the functions of the king, where he survived at all, were radically changed. The "Crown" became symbolic of the people as a whole. Crown lands, once looked upon as the king's private estate, became the public domain. With the advent of democratic government in particular, the

functions of government were greatly enlarged. Revenues from the public lands were hopelessly inadequate to maintain the new scale of governmental expenditures. Other sources of revenue had to be found. Chief among these was taxation, so familiar today as the principal source of public revenue. When autocratic governments sought to collect taxes, there were often public protests, such as the rallying cry of the American Colonies in the contest with Great Britain: "No taxation without representation." But as the people came into the control of government and themselves held the purse-strings, taxes were imposed by the people and for the people. Consequently there was less need for the maintenance of a great public domain as a source of revenue. If it served the public purpose better to allow public lands to pass into private hands, the land could still be made revenue-yielding by means of taxation.

In the United States our federal government at one time held title to about 1,500,000,000 acres of land, which is approximately three fourths of the area of the country. This land had been acquired by cession from the thirteen original States and by purchase. The claims of the original States rested upon grants from the British kings, which in turn rested upon discovery, settlement, and conquest. The largest and most notable of the land purchases by our government was the purchase from France in 1803 of the Louisiana territory for \$15,000,000. It is conceivable that the federal government might have retained title to all this land and merely leased it to settlers. If this had been done, and if the development of the country had progressed in much the way that it actually did, the government would now be fabulously rich. But our government chose a different policy. It preferred to endow individuals with land, to help them create wealth, and then to tax them for the support of the government.

A variety of methods was adopted in disposing of the public domain. Millions of acres were given away as rewards for military and naval service. Millions more were given to the railroads as subsidies for the development of systems of transportation. Still other millions were given to the States as aids in the development of education. For a time the government adopted a policy of selling the land. During the early part of this sales-policy period vast tracts of land

were sold to land colonization or settlement companies. After 1841 preference was given to actual settlers, who were willing to live on the land and to cultivate part of their holdings. Much land was sold for \$1.25 per acre. Beginning in 1862 with the enactment of the Homestead Law, the government definitely adopted the policy of giving the land to the landless in the expectation that their efforts would develop and ultimately enrich the country.¹

It is obvious that the United States government has not functioned as a large landed proprietor, who was bent upon making the public domain yield all the revenue that it possibly could. Government records show that from 1785 to 1932 the total cash receipts from public lands amounted to \$615,284,507.² Against these receipts must be charged the expenses of administering our lands for purposes of sale. The gain, if any, is a mere bagatelle when the magnitude of the operations, which involved hundreds of millions of acres and extended over 140 years, is considered. It is not the fiscal aspects of our public land policy that commend it. It must be judged in the light of all the social gains and losses which transfer of the land to private owners involved. On the one side of the account we must enter the rapid settlement of the country and the development of its resources; on the other, greedy exploitation and wasteful use of the richest natural heritage ever bequeathed to any people. Taxation of private owners, rather than revenue from public ownership, now yields the principal income which the government derives from resources that once belonged to it. The enormous waste and uneconomical use of natural resources represent a dead loss that can never be offset.

For more than a hundred years the federal government pursued the same policy with reference to forest lands and mineral lands that it has followed in connection with agricultural land, but with much less reason. Our magnificent forests and untold mineral riches could have been developed much more wisely in the public interest, as far

¹ The *Report of the Commissioner of the General Land Office to the Secretary of the Interior* (1932) (pp. 41, 44-45, 50) states that the United States Government has given 142,284,633 acres of the public domain to the States and to corporations for railroad purposes, 203,085,625 acres to the States for educational and related purposes, and 236,193,008 acres to settlers for homestead purposes.

² *Report of the Commissioner of the General Land Office to the Secretary of the Interior* (1932), p. 58. The exact period is from May 20, 1785, to June 30, 1932.

as both revenue and conservation are concerned. But instead we allowed these also to pass into private hands. During the past forty years the need of a change in policy has become apparent. A national forest reserve was established in 1891. On June 30, 1931, the national forest reserves covered 185,251,582 acres and included all the best timberland the federal government still owned. Within these forest reserves scientific forestry is practised; trees are cut as they mature, and in a way so as not to interfere with the growth of others. In time such management of our forests can be made a source of substantial income to the government, either through the granting of leases that permit the cutting of timber under governmental direction or through direct government operation. For the present the government is more concerned with the development of our national forests and the extension of scientific forestry on private lands than it is in revenue from forestry operations.

It is estimated that the annual consumption of timber in the United States is more than four times as great as the annual increase in supply. It is easy to see that a timber famine is ahead unless heroic measures are taken to avert it. Not merely for possible future revenue but to ensure the very existence of a timber supply available for use, the government is bound to play an increasingly important part in forestry operations. It takes a long time to grow trees that are suitable for timber—thirty years at least and sometimes two to three times as long. Private enterprise is not best fitted for operations that are so long drawn out. If private timber companies had begun to practise scientific forestry before our virgin forests had shown such marked signs of depletion instead of exploiting them for the greatest possible immediate gain, the situation might have been different. As it is, probably only the government can now reasonably be expected to undertake the extensive long-time operations necessary to ensure future generations an adequate timber supply.

In the United States the rights to sub-surface deposits also passed into private hands with the surface property rights. In consequence our minerals and metals, our oil and gas, have been developed and exploited by private interests. Incredible waste has resulted. To meet the pressure of intense competition, production at the lowest possible unit cost was necessary. In consequence only the richest

seams of bituminous coal have been mined, but in the process at least as much coal has been permanently wasted as has been taken from the earth. In tapping the pools of oil and gas beneath the earth's surface more gas has been allowed to escape into the air than has been captured for economic use. And with the escape of the gas the natural pressure was lost that could have brought the oil to the surface most economically. Geologists have estimated that the greater part of the available oil is usually not recovered. This is directly attributable to our system of private property rights in sub-surface wealth. When oil is discovered in any region, competitive exploitation on the part of adjoining property-holders leads to the sinking of many wells, the escape of the gas, and the recovery of only a minor percentage of the oil. If the government had retained title to our mineral wealth and had leased it to corporations for development under terms that would have ensured efficient production, we should have accomplished two important things: the conservation of our mineral resources, and the procuring of revenue greater than that now obtained by the taxation of such property. Government ownership of valuable underground deposits with leaseholds that ensure the private investor a fair return on the capital invested, when viewed in retrospect at least, would have been a fairer and wiser public policy than the policy of handing our underground resources over to private interests for quick and wasteful exploitation.

In recent years a more economical plan of private production of oil, known as the unit system, has been developed. Under this plan landowners in a given oil area surrender their individual rights to extract oil for rights to share in the total oil extracted in the area under a centralized unitary system of operation. The unit system of oil production seeks to eliminate wastes, to reduce costs, and to offer some measure of control over production.

By acts of Congress in 1909 and 1914, together with subsequent amendments, it was finally provided that the government might in its discretion convey only the surface rights of lands opened to agricultural entry and could reserve title to coal, phosphate, nitrate, potash, oil, gas, or asphaltic minerals.³ As a result vast stores of

³ 35 *U.S. Statutes at Large* (1909), 844, and 38 *U.S. Statutes at Large* (1914), 509.

underground wealth have been reserved by the government for the people. Drastic political upheavals in Mexico resulted in 1917 in a new constitution, which vests in the nation the direct ownership of all sub-surface wealth. Because the constitution further states that with reference to such property "the ownership of the Nation is inalienable", grave doubt was cast upon the legality of previously acquired holdings, in spite of an apparently saving clause in the preamble that "no law shall be given retroactive effect to the prejudice of any person whatsoever." The Mexican government is trying to make the public domain yield greater revenue, in spite of whatever alienation of land to its own citizens, or concessions to foreigners, may have occurred in the past.

Revenue from the monopolies of government and other public industries. Can the government reasonably count on substantial revenues from the ownership and operation of government monopolies and other public industries? Many of the monopolistic enterprises of government, it must be admitted at the outset, are not operated for the purpose of securing the maximum possible revenue. Occasionally the purpose of the government in establishing its own monopoly in a given business field is the restriction, if not suppression, of consumption, such as the monopoly of the Swiss government in the manufacture of alcoholic beverages. More frequently the purpose of the government is to render its citizens an indispensable economic service at cost, or substantially at cost, such as the postal system of the United States. In some countries, moreover, government monopolies have been established in certain enterprises because these were regarded as of strategic military importance. This consideration accounts for the government monopoly of railways, the telephone, and the telegraph in various European countries. But if the government of a country sees fit to operate either its natural or socially created monopolies for revenue, it has both the power and the opportunity to do so. Railways in Germany, tobacco in France, and salt in Italy are familiar examples. Whether any government will either acquire the ownership or undertake the operation of a given business enterprise depends upon a variety of social considerations, of which the possibility of procuring revenue is only one.

As an easy source of revenue, governmental commercial enterprise has little to commend it. This, it must be reiterated, is not necessarily to condemn it, for other social purposes served by government ownership and operation may be more important than either a surplus or deficit of revenue. In the United States, government ownership has not made much headway either for revenue or for any other purpose. The postal system is our only large business enterprise, and this, if we count expenditures on capital account, has always been operated at a loss. The more common forms of government ownership in the United States are municipal utilities, such as water-works, electric lighting systems, and to a much smaller extent gas plants and street railway lines. Of these by far the most important are municipal water-works systems. According to the United States Census, out of a total of 310 cities having a population of 30,000 or over in 1930, 258 cities report revenues from municipal water-works.⁴ After allowing not only for ordinary operating expenses but also for depreciation and interest on the investment, it is doubtful that the revenues derived from municipal water-works systems show any profit that can be used for other municipal purposes. Next to water-works, electric light and power represents the favorite form of public utility that is municipally owned. The percentage is not nearly so large, however, and the average municipal plant is small in comparison with the privately owned plant.⁵ As a source of revenue for general public purposes it is of negligible importance. And among our large cities in 1932 only Detroit, San Francisco, Tacoma, and Seattle owned and operated street railway systems. What experience we have had with municipal ownership in the United States warrants at least this general conclusion: municipally owned utilities do not yield any substantial net revenue to the public treasury. The guiding principle in their operation seems to be service to the public; even though this often means that deficits must be met by the taxpayers. Whether we could do better,

⁴ *Financial Statistics of Cities* (1930), Table 11, pp. 300-309. How many of these plants are both municipally owned and operated it is impossible to say. Franchise taxes may account for some of the revenue.

⁵ In 1930 there were thirty-three municipal electric light and power plants in the 310 cities of the United States having a population of 30,000 or over, from which public revenues were received.

as far as fiscal results are concerned, if we really tried, is a matter of conjecture.

The experience of foreign countries is not very much more reassuring as far as surplus revenues from government monopolies are concerned. It is true the German States have been able to show a fair return on the capital invested in their railways, but in most countries the government operation of the railroads, when all proper charges are made against them, represents a drain upon rather than a contribution to the public treasury. The British operation of the telegraph has shown a fairly steady deficit. As far as foreign municipal utilities are concerned, it is hard to get at the whole truth because often expenditures are charged against the capital account which should be charged against operation, inadequate allowances are made for depreciation, and the municipal utilities are not made to carry their fair share of the governmental overhead expenses incurred on their account. As matters stand, the financial results are mixed and indecisive; in some places government operation shows a surplus, in others a deficit.

In government enterprises that are more strictly speaking fiscal monopolies the government has been more successful in securing revenue. The manufacture and sale of certain commodities in general use are monopolized by the government for the avowed purpose of getting substantial revenue. Tobacco has been a prime favorite. Austria, France, Italy, Japan, Portugal, Roumania, Spain, and Sweden have all directly, or indirectly, maintained successful tobacco monopolies. In these countries the government has the exclusive right of engaging in the tobacco business, except as it has granted concessions to private companies in return for a favorable price. Matches in France, camphor in Japan, and salt in Italy are other well-known illustrations of government fiscal monopolies. Profitable as some of these have apparently been, a contemporary writer makes the following guarded statement concerning even such state monopolies:

We may safely conclude that the state monopoly of the manufacture and sale of any commodity is not and will probably never become an important source of public revenue. Against the large apparent revenue which the tobacco monopoly countries are getting must be set the revenues which would be obtained from the taxation of this commodity if pro-

duced and sold by private capitalists, as well as the other taxes on the property used in its production and sale, and the taxes on the incomes of those engaged in this business. The articles thus monopolized are ordinarily those which might be singled out for fairly heavy taxation in any case. When the alternative revenue possibilities are taken into account, the advantage from state monopoly diminishes, and if we consider such a question as the proper incidence of the burden of government, it is likely to disappear entirely.⁶

REVENUE FROM FEES

Much more important than the commercial earnings of government, which experience has proved inconsiderable except under monopolistic conditions, are the revenues derived from fees, special assessments, and taxes, which constitute the principal sources of governmental revenues. While fees and special assessments bulk small in comparison with taxes, they are indispensable forms of revenue and are apt to grow rather than diminish in importance.

A fee is a payment required from a person to defray in part or whole the expense of a special service rendered him by the government, but the performance of which is necessitated by the general public interest. Fees resemble public prices, which are charged for the commodities produced or the services rendered by some public monopoly, but they are not identical. In both fees and public prices there is recognition of special benefits conferred. But fees are paid for services less strikingly commercial than in the case of public prices. The primary purpose of the government in rendering the service is not volume of business but the promotion and protection of the public interest. In rendering this general service, however, the government also confers special benefits upon certain individuals. The beneficiaries of such special service are required to pay fees to the government for rendering it. Illustrations of fees are afforded by the passport fees charged by our federal government, court fees charged litigants in judicial procedure, and student fees charged by State universities. The regulation of passports, the administration of justice, and university education are all provided by the government for the common benefit. At the same time part of

⁶ H. L. Lutz, *Public Finance* (New York: D. Appleton and Company, 1924), p. 189.

the cost of rendering the service is properly charged to the recipients of a special benefit.

A fee system has certain definite advantages which will doubtless give it a permanent place in our revenue system. In the first place there is the obvious advantage of easily obtained revenue which can be made to grow in amount as the general burden of taxation becomes heavier. The time when persons have just received a direct service from the government is a peculiarly propitious time for collecting some revenue from them. And it all helps to meet the rising cost of government. Secondly, the compulsory payment of fees has a salutary effect upon the recipient of the special service. It is a well-known fact that most people need to feel the pain of parting with something of value in order properly to appreciate the value of a service rendered them. Thirdly, the payment of fees doubtless has a restraining influence upon persons in preventing the wasteful use of certain public services. The necessity of paying court fees often has a quieting effect upon the over-wrought nerves of contentious litigants.

The collection of fees by government officials, however, has not been without its abuses. These have arisen from the practice in some places of allowing public officials to keep the fees they collect in lieu of any other compensation. This system has sometimes made possible excessively large incomes, notably in such offices as that of county sheriff. One may reasonably suspect that the scramble for certain public offices is not wholly motivated by an irrepressible zeal for public service. What is more, a fee system which allows public officials to retain the fees they collect is apt to have an overstimulating effect upon the activities of some officials. If the arrest and conviction of persons violating traffic regulations are rewarded by the collection of fines, which include fees for officers controlling traffic, local police and court officers are under strong temptation to give most attention to that administration of justice which pays. This may result in the neglect of other important kinds of law enforcement.

The obvious remedy for these abuses of the fee system has long since been adopted in most States, namely, to require that fees be paid into the public treasury and that government officials col-

lecting them be paid fixed salaries. Such an arrangement retains the advantages of the fee system from the public point of view and at the same time avoids the evils that arise from its abuse.

Closely related to fees and usually hard to distinguish from them in practice are licenses. Charges that are called fees in some places are known as licenses in others. The most widely known license charge in the United States today is the automobile license. If any distinction is to be drawn between fees and license charges it lies principally in this: fees are charges for services performed, such as the recording of a deed conveying title to property; license charges are made as an aid in the public control of that which is licensed. An automobile license grants permission to operate the car on the highways; failure to obtain it renders such car-operation illegal. If a license charge is just large enough to carry its share of the cost of maintaining the necessary regulatory license department, the charge is essentially a fee. If the license charge is large enough to yield a surplus over the cost of rendering the service, it resembles a tax.

REVENUE FROM SPECIAL ASSESSMENTS

Local governments, particularly municipalities in the United States, derive substantial income from a distinctive form of revenue known as the special assessment. Special assessments are compulsory charges made against landowners to help bear the cost of property improvements, which are made in the public interest but confer special benefits upon the property-owners. The familiar example in this country is street improvements, such as the installation of a sewer system, the laying of sidewalks, or the paving of streets. It has become customary to assess part of the cost of such improvements against the abutting property-owners on the ground that the improvement brings them at least an equivalent increase in value. What part of the cost of the improvement shall be assessed against the private property-owners must be determined in each case; obviously the upper limit is the total value of the improvement.

As the terms "fee" and "special assessment" have been defined in the foregoing discussion, it is clear that a special assessment is only a distinctive form of fee. In both fees and special assessments the

principle of special benefit conferred is paramount. In the latter a conscious effort is made to adjust the assessment to the value of the service rendered, which is not so strikingly true of fees in general. What justification there is for distinguishing between fees and special assessments lies in the distinction between the general and the special: fees are charged for a great variety of public services conferring a special benefit upon the recipient; special assessments are only made against landowners for improvements made to their property.

The special assessment is a distinctive American device for defraying the cost of local improvements. Its great value as a fiscal expedient lies in the fact that it facilitates the extensive improvements demanded in a new and rapidly growing country. If such improvements had to wait until they could all be met out of general taxes, there would be many long fiscal delays which would preclude the most rapid development of our cities. Furthermore, it is eminently just that they who derive a special benefit from the improvement made should also pay a special charge for having it made. Special assessments therefore combine in a unique way two principles not always united in a government charge: political expediency and economic justice. Altogether special assessments have proved an invaluable source of revenue in American municipal finance.

But special assessments have sometimes been ill advised. If the government, which has the power to order the local improvements, happens to be either extravagant or corrupt, the levy of special assessments may accentuate waste and corruption and loot the pockets of the property-owners. But this is an indictment of poor government rather than a fair criticism of the special assessment itself. The evils in unwarranted special assessments can be avoided by requiring the observance of principles like the following: securing the consent of a majority of the property-owners affected by any proposed improvement; in lieu of this, securing authorization of the improvement by a heavy majority (say three fourths) of the city council or similar body; stipulating that no special assessment shall be more than a small percentage of the value of the property against which it is levied.

REVENUE FROM TAXES

The great bulk of the revenues of government is derived from taxes rather than from public enterprise earnings, fees, or special assessments. In the fiscal year ending in 1930, for example, taxes (if license revenues be included) constituted 79.4 per cent of the revenues of State governments in the United States. Similarly in 1930 taxes constituted 86.8 per cent of the revenues of the federal government.⁷ It is obvious from these figures that the real burden of supporting the government is felt when people pay their taxes.

In contrast to public prices, fees, and special assessments, a tax may be defined as a general compulsory contribution of wealth, exacted by public authority according to some general rule, and levied without reference to the special benefits which the contributors derive from the public purposes for which the revenue is required. It is the absence of a *quid pro quo* or distinct equivalent value which most sharply distinguishes taxes from other sources of public revenue. Taxes flow into the public treasury and are spent for the common good.

Numerous forms of taxation have been devised, some good and others bad. When may a tax fairly be described as a good tax? Is there any real justice in taxation or is taxation merely a matter of necessity and its particular form a matter of expediency? Is there any justification for varying rates of taxation when applied to the same taxable element, such as income or property? Can some taxes be shifted and must others be borne by those upon whom they are imposed? These and other questions constitute the theme of the next chapter.

⁷ *Statistical Abstract of the United States* (1932), pp. 162, 208.

CHAPTER XXIX

FORMS OF TAXATION

Taxation systems often present a crazy-quilt appearance. The pattern is determined by political expediency rather than by economic justice. It has not inaptly been said (to change the metaphor) that most tax measures embody no more scientific principle than that expressed by the sophisticated tax cynic, who compared the imposition of taxes to plucking the feathers of a goose in such a way that it will squawk as little as possible. The operation is painful but necessary. No satisfactory general anesthetic has yet been discovered, though some local applications look promising. The amount of squawking heard on all sides, however, is an indication that present methods are not altogether successful. Indeed, there are those who insist that some squawking is the death-cry of the goose that lays the golden egg. Which geese of the flock shall be plucked first, and how severely, depends upon who is in power. The governments of communistic Russia and of capitalistic America may reasonably be expected to make very different decisions on this matter.

In spite of the fact that there always has been, and doubtless always will be, much arbitrariness in the imposition of taxes, much serious thought has been given to the matter of levying only good taxes and of constructing well-balanced systems of revenue. While perfection in tax matters is a visionary goal, it is well that legislative bodies imposing taxes should move in the direction of the ideal rather than away from it. Most tax systems give evidence of group contests and compromise. In his presidential address delivered at the fortieth annual meeting of the American Economic Association, Thomas S. Adams began by saying: "‘In taxation’, says the cynic, ‘let me make the deals and I care not who makes the ideals.’ . . . While taxation may not have started as a class struggle, and while the class element is modified in the United States by the opera-

tion of constitutional inhibitions, modern taxation or tax-making in its most characteristic aspect is a group contest in which powerful interests vigorously endeavor to rid themselves of present or proposed tax burdens. It is, first of all, a hard game in which he who trusts wholly to economics, reason, and justice, will in the end retire beaten and disillusioned. Class politics is of the essence of taxation.”¹

CRITERIA OF GOOD TAXES

When may a people, in spite of such group contests, be said to have a good system of taxation? There are many different answers to this question depending upon the circumstances of time and place; but there are also certain easily recognized earmarks of good taxes that are very generally accepted. More than a century and a half ago, Adam Smith formulated some canons of taxation which have provoked much discussion, because, unfortunately, practical tax procedure has not always been in accordance with them. Smith said that good taxes should be based upon principles of justice, certainty, convenience, and economy.² More recent writers have added other tests, among which productiveness and simplicity deserve special mention.

A good tax, all would agree, must be a just tax. But specifically when is any tax a just tax? To this question there is no unanimous answer. The reason for this is that it is extremely difficult to apply an abstract principle of equity to concrete situations. What one regards as fair may run counter to another's sense of justice. Implicit in the conception of justice, which most people entertain with reference to tax matters, is the idea that taxes shall neither be levied nor collected arbitrarily; that all who are liable to pay a given tax shall be required to pay it. But even if the tax is fairly levied and uniformly paid by all who ought to bear it, the question still remains, Are the particular form and degree of taxation themselves just? In this connection it is well to remember that the whole institution of private property rests upon the sanction of the state, and

¹ "Ideals and Idealism in Taxation", *American Economic Review*, XVIII (1928), 1.

² *Wealth of Nations*, Book V, Ch. II.

that the payment of taxes, to whatever extent deemed socially necessary, is both a logical condition and a result of the maintenance of private property rights. One may as well admit that perfect justice in taxation is unattainable; it is a mirage which all but tax visionaries recognize as such. We shall have to be satisfied with a uniformity and equality of taxes that fall short of the ideal. What practical standards of justice for distributing the burden of taxation have been devised will be shown later in this discussion.

A good tax, said Adam Smith, ought to be certain, not arbitrary. "The time of payment, the manner of payment, the quantity to be paid, ought all to be clear and plain to the contributor, and to every other person."³ If such matters are not certain, the taxpayers may be left at the mercy of the tax-collectors, who may be unenlightened and unscrupulous. Most taxes in countries having stable governments easily conform to this criterion of certainty. Taxes are as certain as death, and more certain as to time and accompanying conditions.

Convenience in the payment of taxes is an important criterion of a good system of taxation. Modern gasoline and other sales taxes are good examples of convenient taxes; they are paid at the time of purchase and in proportion to the amount of the purchase. In order that heavy taxes may be paid with the least inconvenience to the business of the tax contributor, some governments provide that taxes may be paid in instalments, such as the federal income tax in the United States.

That a good tax is a tax which can be economically administered and collected is a universally accepted maxim of taxation. Smith's statement of this maxim is: "Every tax ought to be so contrived as both to take and to keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state." Cheapness of collection is an excellent test of the operating efficiency of a tax-administrative body. If a considerable percentage of every dollar of a given kind of tax is absorbed by the cost of collecting it, there may well be reasonable doubt concerning the wisdom of continuing that form of taxation. Disproportionately large direct costs of collection condemn a tax. But there are indirect

³ *Wealth of Nations*, Book V, Ch. II.

costs which may also condemn it, when measured by this criterion of economy. If a proposed tax actually discourages either the production or the accumulation of wealth, it is not an economical tax in the long run, for it tends to make people poorer and so diminishes their ability to pay. Any form of taxation (no matter how great the immediate revenue that it produces) which tends in the long run to dry up the sources of public revenue is an uneconomical tax.

Taxes are primarily imposed in order to raise necessary revenue for the government. Consequently, a very concrete test to apply to every form of taxation is this: Will the proposed tax yield substantial revenue? If the tax is not fiscally productive, it is not worth while unless some non-revenue purpose is to be served by imposing it. It makes no difference how just or certain or convenient or economical a given tax may be, if it fails to yield revenue it is not a good tax. In considering the fiscal productiveness of a tax, both its yield in the immediate present and its probable yield over a period of time are important. Some taxes are big revenue producers for a short time, such as was our excess profits tax, and then dwindle away. Others are steady sources of income year after year. Sometimes the fiscal adequacy of a tax is the only criterion that can be considered. National emergencies, such as war, may make it imperative to draft and mobilize sources of revenue that it would be unwise to tax in periods of peace. Consumption taxes, popularly known as "nuisance" taxes, are an illustration in point. While in times of national emergency the fiscal adequacy of a tax dwarfs all other considerations, in times of peace taxpayers are more critical, and good taxes must have other virtues as well.

Finally, a good system of taxation should be as simple as it is possible to make it. Simplicity is a distinguishing quality that it is not always easy to achieve. The drafting of an income tax law, for instance, that measures up to the other quality tests that have just been discussed, will doubtless always involve some complexities of statement and procedure. Whenever possible, however, tax measures should be simple and readily intelligible. A tax that is not readily understood is hard both on the taxpayer's purse and on his morale. His disposition to pay is improved when he understands the equity of the tax. Our excess profits tax during the war period was a diffi-

cult tax to understand. Sales taxes, whatever may be their faults, have the undeniable merit of simplicity.

BEARING THE BURDEN OF TAXATION

The most perplexing problem in any system of taxation is the problem of devising a proper distribution of the burden of taxation. Two important principles have been advocated: the principle of benefits received and the principle of ability to pay.

According to benefits received. At first sight it may seem most equitable that taxes should be levied in accordance with the benefits received: the greater the benefits, the greater the tax. This is the principle underlying certain public prices, fees, and special assessments, even though these public charges do not pretend to be an accurate measurement of the benefits received. But is the benefits principle equally applicable in the field of taxation? In support of this principle it may be urged that the people of a given governmental unit, such as a rural township or city, should pay all the taxes required for the support of their governments, because they receive the immediate benefit of whatever the town or city government does. Some expenditures, such as those for roads and schools, may very properly be aided by larger governmental units without invalidating this principle. But while the benefits principle is of great importance in apportioning the tax burden among governmental units, this is not at all equivalent to saying that it serves equally well as a gauge of the tax payments of individuals.

If government still confined itself very largely to the protection of life and property, the benefits principle could be much more equitably applied than is possible at a time when government has assumed numerous other functions. In that event every adult might reasonably be expected to pay a poll-tax in return for the protection of life, and every property-owner to pay property taxes in return for the protection of his possessions. But modern government does so much more than merely to afford the necessary protection to life and property, and the benefits received by citizens are so general rather than special, that in practice it is impossible to apportion taxes among individuals in accordance with benefits received. To

do so would be to impose unbearable burdens upon the poor and to deprive the state of adequate revenues for doing things required by the common good. The poor, for example, cannot be expected to contribute to the support of our schools in proportion to the benefits which they receive. There are many more poor families than rich; they average a larger number of children, and these must all be educated. If it were necessary to make a strict allocation of the costs of the public schools in accordance with the benefits principle, it would be impossible to maintain schools of the present standard. The provision of parks and playgrounds and the care of dependents and defectives are other striking examples of the impracticability of apportioning taxes according to benefits received. But while the principle of benefits received cannot serve as a means of determining an individual's tax bill, it is very useful in showing the obligation of the citizen to contribute to the support of his government.

According to ability to pay. Much more practical as a guide to the distribution of the tax burden is the ability-to-pay principle. It is not hard to guess that the loudest and most ardent champions of this principle are not usually to be found among those having the greatest ability to pay. Even after the principle itself is accepted as a fair basis for the levying of taxes, its application is neither simple nor easy.

One immediate difficulty arises when we try to agree upon what is the best measure of the ability to pay taxes. Is it the possession of property? Is it the size of one's income? Is it the type of one's outgo? Whatever opinion anyone may hold with reference to the best yardstick of ability to pay, in practice it has been found necessary to employ all three—property, income, and consumption—as measures of ability to pay. Property does not necessarily yield income, but nevertheless its possession is presumptive evidence of the ability of the owner to pay taxes from some source. Wherever there is income there is ability to pay, but this ability is so small in the lowest income classes that the common income tax practice is to exempt all income below a designated amount. If people spend money for certain specified goods, such as gasoline or theater tickets, it is assumed that they have the ability to pay taxes, and gasoline taxes and so-called luxury taxes are the result. So great is the need of the

government for revenue that in all probability all three of these measures of ability will continue to be used in the indefinite future and in many cases be applied to the same individual.

Another practical difficulty in the application of the ability-to-pay principle is raised by the question, Does ability to pay taxes vary directly or in some other way with whatever measure of ability is adopted? Does the man, for instance, who has an annual income of \$20,000 have only twice the ability to pay possessed by the man with an income of \$10,000? Does the ownership of \$100,000 worth of property imply double the tax-paying ability conveyed by the ownership of property worth \$50,000? In practice, whether income or property be the measure of ability to pay, taxes are sometimes *proportional*, at other times *progressive*, sometimes *degressive*, at other times *regressive*.

A proportional tax applies a uniform rate of taxation against all income or property, regardless of its amount. An income tax, for example, is proportional if it levies the same rate, say 4 per cent, against the income of \$20,000 that it levies against the income of \$10,000. The former pays twice the income tax of the latter, but the rate is the same.

A progressive tax, on the other hand, levies an increasing rate of taxation against income or property, with increases in their amount. Our federal income surtax on individuals is progressive within certain income levels. The individual taxpayer is assessed 4 per cent as a surtax upon net income in excess of \$4,000 and not in excess of \$6,000, and thereafter an additional 1 per cent for each additional \$2,000 of net income, up to 9 per cent upon net incomes in excess of \$14,000 and not in excess of \$16,000. For each of the next three brackets of \$2,000 income the surtax rate is increased by 2 per cent, reaching 15 per cent on income in excess of \$20,000 and not in excess of \$22,000. For larger incomes neither the rates nor the increments of income to which they are applied are strictly progressive; 75 per cent on incomes in excess of \$5,000,000 constitutes the maximum rate under the Revenue Act of 1935.

A degressive tax is in reality a form of progressive tax. A degressive tax is one the rate of which increases as income or property increases, but at a diminishing rate and approaching a limit. The pro-

gressiveness of the tax loses momentum as it reaches the upper levels of income or property, and finally its advance is checked completely. Most progressive income taxes become degressive as they reach the higher income altitude. They are like a weary mountain climber handicapped by the rarefied atmosphere, whose strides become shorter and whose movement grows slower until he stops altogether. Degressive taxes are progressive taxes that have departed from the strait and narrow way of strict orthodox progressiveness.

In contrast to progressive rates of taxation stand tax rates that are regressive. A regressive tax levies against income or property a rate of taxation which diminishes with increases in their amount. The rate of diminution may be constant, increasing, or decreasing as the amount of taxable income or property increases. In the United States until comparatively recently (and in some parts the situation is still unchanged), property taxes were decidedly regressive. This effect was produced not by applying diminishing rates of taxation to the more highly appraised properties, but by appraising the property of the larger holders at a smaller percentage of its true value than was done in the case of other properties.

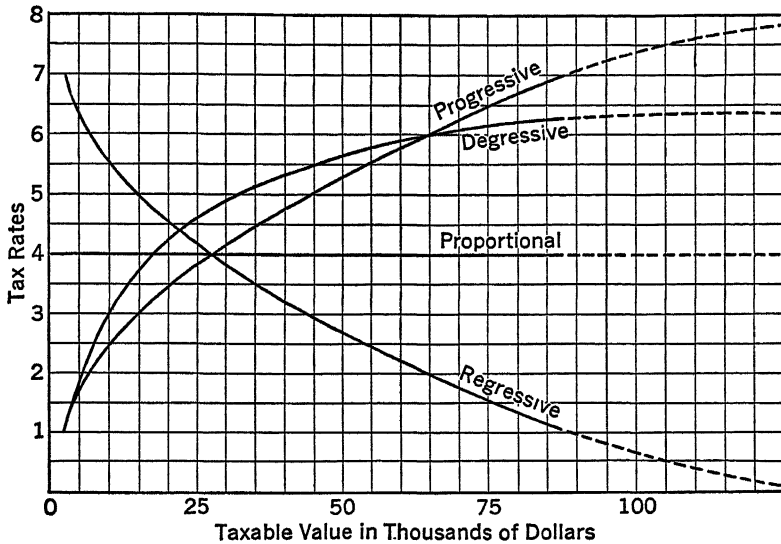
How increasing amounts of income or property are taxed in accordance with proportional, progressive, degressive, and regressive rules is shown by the following mathematical and graphic illustrations.

<i>Amount of Income or Property</i>		<i>If Taxed at Assumed</i>			
<i>Exceeding</i>	<i>Not Exceeding</i>	<i>Proportional Rates</i>	<i>Progressive Rates</i>	<i>Degressive Rates</i>	<i>Regressive Rates</i>
\$ 1,000	\$ 5,000	4	1	1	7
5,000	10,000	4	2	2½	6
10,000	20,000	4	3	3¾	5
20,000	35,000	4	4	4¾	4
35,000	55,000	4	5	5½	3
55,000	75,000	4	6	6	2
75,000	100,000	4	7	6¼	1

How lightly or heavily the tax burden rests is more clearly seen when these data are reduced to the following graphs.

So great is the need of the modern state for revenue that it is exceedingly unlikely that the burden of taxation will ever be ad-

justed in strict accordance with a single principle. In an economic system that respects private property rights, the sources of revenue, must be diversified to produce the necessary income. Property, income, and outgo will doubtless all continue to be taxed. Taxes will be imposed upon both the benefits-received and the ability-to-pay principles. Some taxes will be proportional, others progressive, and some no doubt will continue to be degressive. What to tax, how to tax it, and how heavy or light a tax burden to impose are issues



GRAPHS SHOWING VARYING RATES OF TAXATION

constantly fought over by the economic groups represented in legislative bodies.

The specific forms of taxation are numerous. In general it may be said that the chief forms of taxation include taxes upon property, upon the right to do business, upon consumption, upon income, and upon the right to transmit property from generation to generation.

PROPERTY TAXES

The most important form of taxation in the United States today, whether judged by the total revenue produced or the number of persons who pay it, is the general property tax. It is a State and local

tax, not a federal tax. The federal Constitution makes its use by the federal government impractical when it declares that "no capitation, or other direct tax, shall be laid, unless in proportion to the census." The general property tax is levied against both real and personal property. Characteristically it began as a land tax, later came to include many kinds of personal property, and ultimately broke down as a satisfactory principal form of taxation because of the rapid multiplication of intangible forms of property. Although yielding more than one half of the combined revenue of State and local governments in the United States, the general property tax is today one of the least satisfactory of our forms of taxation.

As far as levying the tax is concerned, while the procedure differs somewhat in different tax districts, essentially it consists in annually making a list of all the taxable property in a given district together with its appraised value. The appraisal (or assessments, as they are commonly called) in practice may represent the full value of the property, but more generally they represent only a major fraction of its true value. Legislative bodies, local and State,⁴ determine the amount of the public expenditures. Administrative officers estimate the amount of income to be derived from the various sources of public revenue. What cannot be raised from other revenue sources must be borne by general property. Given the amount of money that must be raised from taxes against property and the appraised valuation of the property itself, public officials can easily determine the rate of taxation to be levied against such property. This rate must be uniform within each taxing district.

A uniform rate of taxing property, however, does not in itself ensure fair treatment of all property-holders; this is a question of complete listing and fair appraisal of all taxable real and personal property. In practice realty has on the whole been appraised far below its true value. Personal property, on the other hand, has often failed to find its way onto the tax roll at all. The holders of intangible personal property, such as stocks, bonds, and notes, have found it comparatively easy to evade a large part or all of their tax burden. Such a situation has worked great injustice to those owners

⁴ Town boards, village boards, city councils, county boards, and State legislatures are the chief taxing bodies in the United States.

of property, real and personal, whose holdings were actually listed by the assessor and has helped to discredit the general property tax.

Justification. The general property tax is justified by its advocates on the grounds of both benefits received and ability to pay. The holding of property is only possible on account of the guarantees of the state; consequently it is entirely fair that property-owners should contribute to the support of the state to which they owe the security of their property rights. Property, it is further argued, is a gauge of the ability to pay taxes. That it is some measure of the ability to pay must usually be admitted. That it has sometimes been a fair index must also be granted. That it is universally a reliable gauge of the ability to pay taxes, however, must be denied.

Defects and remedies. Indeed, the assumption that the possession of like amounts of property, however dissimilar they may be in kind, necessarily implies equality of tax-paying ability is one of the basic defects of the general property tax. To treat production goods and consumption goods, realty and personalty, tangibles and intangibles, all alike for purposes of taxation is to mistake the sources from which taxes are paid. The mere possession of property is not an adequate measure of the ability to pay taxes. The reason for this lies in the distinction between wealth and capital. Property in some forms of wealth is non-productive of money income. The possession of such property does not ipso facto confer any ability to pay taxes upon its owner. It is only when the property possessed is income-yielding capital that it furnishes assurance of the ability to pay taxes. As a rule, however, the general property tax fallaciously assumes that justice in taxation has been done when people pay taxes in direct proportion to the value of their property. The exemption of certain forms of property, such as most household goods, is recognition of the shortcomings of the underlying theory of the general property tax and is a partial attempt to correct the same.

Another defect of the general property tax is its inequitable duplication of taxes. It taxes both tangible property, such as land and buildings, and intangible property rights, such as stocks, bonds, and notes which merely represent the tangible property. A corporation, for example, may have physical assets appraised at \$200,000 which are taxed at situs. Against these it may have issued \$200,000

of securities, which, under the general property tax if rigorously applied, are taxed at the domicile of their owners.⁵ The same \$200,000 of assets are taxed twice; once in their tangible form, and again in their intangible form of evidences of ownership. Even so, the objection to such duplication of assessments would not be so serious provided 100 per cent of both tangibles and intangibles were assessed and the owners lived in the same tax-paying district. If double taxation were general, the rates of taxation would be lower. The owners of tangible property, represented by intangible property rights, would, however, still be discriminated against when compared with the owners of tangible property not so represented. The property of the former would be counted twice; the property of the latter only once. But of course the main point is that in assessment practice it is impossible to reach all forms of taxable wealth. The administration of the general property tax has been notoriously deficient in finding all the intangible forms of wealth. Consequently there has been much injustice in the burdens imposed by the general property tax.

Another defect of the general property tax, closely related to the two basic faults just described, is the difficulty of procuring complete and fair assessments. Making the assessment is the work of local assessors, who can only appraise what they can see and find. Seeing real estate is comparatively easy; finding intangible personal property is often beyond their ability and power. As the tax burden grows heavier, intangible property seems to grow more elusive. Assessors, moreover, often have exceedingly great difficulty in correctly appraising property that they do find. What real chance is there that a local assessor on a part-time basis, untutored in the affairs of the business, will be able to make a fair appraisal of the true value of the buildings, equipment, raw materials, goods in process, and finished products of a large manufacturing establishment located in his district? To obtain both a complete listing and a fair ap-

⁵ All States exempt from taxation the stock of their own corporations held by their own citizens. The theory is that the tangible property of the corporation has already been taxed by the State. They nonchalantly tax the stocks of out-of-the-State corporations, however, when they are held by their own citizens. The obvious reason is that this is the only way the State can hope to get any revenue at all, since the physical property is taxed by the State in which it is situated.

praisement of property requires effective coöperation between the assessor and the taxpayer. But taxpayers are usually reluctant to bestir themselves, especially when their own activity is apt to cost them money. They prefer to pursue a policy of passive resistance to the assessor, letting him find what he can. The evasion of general property taxes is sometimes motivated by the mere desire to escape an unwelcome burden. At other times it is prompted by the conviction, which develops easily in some minds, that much of the taxation of general property is unjust, since it is double taxation and allows nothing for offsetting debts, such as mortgage notes. Deception of the assessor is warranted, some people believe, if it means the prevention of what they regard as an even greater evil: injustice in taxation. Some States have frankly recognized the fugitive tendencies of intangibles, the ownership of which can only be determined with the aid of the taxpayer himself, and have found it expedient to permit the classification of property for tax purposes. They allow lower rates of taxation on intangibles than on other kinds of property.⁶ The result has been a marked increase in the willingness of taxpayers to list their intangible property, with a consequent increase in the revenue derived from this kind of property.

The general property tax has also been defective in the apportionments made by the States for State purposes. If a State tax is to be raised by levies against property, the amount of this tax is apportioned among the counties in proportion to their respective property assessments. If any county can succeed in keeping its undervaluation of its own property below that of the average for the State, that county carries less than its fair share of the State tax. The obvious remedy for this inequality of assessment is trained and experienced assessors appointed by the State. Such appointees are less susceptible to local influence. State boards of equalization were also established to adjust differences in the ratios of appraised values to true values in the several counties. Usually composed of State officials elected for other duties, such boards had neither the time nor

⁶ California, Connecticut, Florida, Iowa, Kansas, Kentucky, Maryland, Minnesota, Nebraska, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, and Virginia had done so by 1933.

resources to function effectively. Gradually in more than forty States their duties have been absorbed by the more recently created State tax commissions, which have functioned much more adequately.

The breakdown of the general property tax as a satisfactory source of public revenue is attributable to the successful evasion of taxes by most personal property owners and to the undervaluation of listed property. Both of these defects in turn grow out of faults inherent in the theory of the general property tax that the possession of property of whatever kind implies the ability to pay taxes. But the shortcomings of the general property tax do not indicate its complete disappearance. We shall doubtless retain the tax on real estate, both because it can be fairly levied and because we cannot easily dispense with the revenue it yields. Some forms of personal property, that are easily listed and appraised, can also be effectively and equitably taxed—automobiles, for instance, but not intangibles. The need for diversified sources of revenue will dictate the retention of some forms of personal property taxation. For the taxation of intangible and other forms of elusive personal property, however, more effective forms of taxation are being substituted in various tax jurisdictions, notably business taxes and taxes on income.

BUSINESS TAXES

Corporation and other business units, like all other property-holders, have been subject to the general property tax. With the deterioration in this form of taxation, more effective ways of taxing business enterprise were sought. In contrast to the general property tax, which bases taxation upon the mere ownership of property, business taxes are based upon the additional right or opportunity of doing business. The deficiencies of the general property tax are nowhere more evident than in the attempt to apply it to the taxation of large corporations. Much of the capital value of corporations consists in their value as going concerns, their good-will and other intangibles. Such value it is exceedingly difficult to appraise. The mere size of some corporations, such as railroads, and the widely scattered character of their properties, put them beyond the reach

of the ordinary local assessor. He can appraise after a fashion the physical property within his tax jurisdiction—the miles of railroad running through his district, for example. But the aggregate of all such local appraisements is hardly an adequate valuation of the road as a whole. The necessity of treating some corporations as units for taxation purposes led to State assessments, and ultimately in some States to different forms of taxation.

How to tax corporations most advantageously has puzzled legislatures and tax commissions. No single uniform type of taxation has been evolved. We are still experimenting. Consequently, it is not surprising that corporations must pay a great variety of business taxes in the different tax jurisdictions of this country. For the most part the newer business or special property taxes have been applied to railroads and other public utilities. Banks and insurance companies have also come under their sway. Industrial and mercantile corporations, though presenting many of the same problems, have in the main been kept under the older forms of taxation. The chief types of business taxes include *ad valorem* taxes, taxes on either gross or net earnings, taxes on capital stock, and franchise or business license taxes.

An *ad valorem* tax, as applied to corporations, is a tax imposed upon the value of the corporation property as a unit rather than according to the piecemeal assessments made by local assessors. The success of such a tax largely depends upon the competency with which the valuation is made. In general the valuation work is undertaken by a State board clothed with adequate powers. An attempt is made to ascertain the value of a given corporation as a going concern. In arriving at a fair value it is indispensable that there be thoroughgoing physical valuation, supplemented by the appraisal of such intangibles as help to create going concern value. If the corporation concerned falls within the tax jurisdiction of a number of States, its tax liability can be distributed in accordance with some accepted standard of comparison. The *ad valorem* method of taxing the property of corporations as units has been particularly applied to the railroads and some other public utilities. Having arrived at what is considered a fair valuation, some States, like Wisconsin, apply the average rate of property taxation in the State to such

valuation in determining the taxes of the railroads and other public utilities. While there are great difficulties in the use of this ad valorem method of taxation, they are not insuperable. As long as most tangible property is taxed on what purports to be an ad valorem basis, it is equitable that corporations, too, should be appraised in such a way as to determine their fair value. This the unit assessment ad valorem method of taxation seeks to do.

Corporations are sometimes taxed on a gross earnings rather than on an ad valorem base. This is true of telephone and insurance companies in some States. While net earnings would offer a fairer base (this is the principle of the income tax), they are not measured so easily. Gross earnings can easily be ascertained from the books of the company. There is not so much room for the exercise of discretionary judgment as there is in the calculation of net earnings. Gross earnings are also much more easily determined than the taxable property value of a corporation. The gross earnings tax has the acknowledged merits of simplicity, certainty, ease, and economy of administration. It fluctuates with the volume of earnings. Its chief limitation lies in the determination of a fair rate of taxation to be levied against the gross earnings of corporations. In practice it has been found extremely difficult so to adjust the rates on gross earnings as to effect a reasonable equality of tax burden between corporations subject to the gross earnings tax and those which pay taxes on the basis of property valuations. It was this difficulty of apportioning tax burdens among public service corporations and other holders of property which led Wisconsin in 1903, after almost half a century of experience with gross earnings taxation, to abandon this type of corporate taxation as applied to railroads. At present some forms of the general sales tax are gross earnings taxes.

Both the federal government and the States have at times taxed the capital stock of corporations. The federal Revenue Act of 1916, as amended inclusive of 1924, provided for a capital stock tax levied against corporations for the privilege of "carrying on or doing business". From 1918 to 1926 the tax imposed was \$1 for each \$1,000 of the fair average value of capital stock in excess of an exemption of \$5,000. It is evident that a fair governmental appraisal of the value of the capital stock of approximately 500,000 domestic cor-

porations is a problem of such staggering magnitude that not even the United States government has had the men and means to attack it. What taxes have been collected have largely been based on appraisements of capital stock by the corporations themselves. A capital stock tax coupled with an excess profits tax was reinstated by the revenue acts of 1934 and 1935. The law of 1935 levies a tax of \$1.40 on each \$1,000 of the adjusted declared value of the capital stock of corporations, unless these are exempt under the act. Corporations themselves may declare the value of their capital stock for such taxation purpose. Fair valuations are encouraged by the further provision that an excess profits tax is imposed at the rate of 6 per cent on such portion of its net income as is in excess of 10 per cent and not in excess of 15 per cent of the declared value of the capital stock, and 12 per cent on such portion of its net income as exceeds 15 per cent of the declared value of the capital stock. If a corporation declares a low capital value in order to reduce the tax of \$1.40 on each \$1,000 of the value of the capital stock, and if its earnings are substantial, it may have to pay the excess profits tax because it declared so low a capital base. The lower the tax on the valuation of the capital stock, the higher will be the tax on excess profits, if there are any.

Prior to 1928 many States taxed the capital stock of banks. The federal government permitted the States to tax the national banks under certain conditions, one of which was that any tax imposed upon a national bank must not be at a rate higher than that levied against any form of competing capital. Decisions of the United States Supreme Court in the *Merchants National Bank of Richmond*⁷ and the *First National Bank of Hartford*⁸ cases invalidated much bank stock taxation by the States on the ground that it was discriminatory. It was held to be prejudicial to the owners of bank stock when compared with the owners of other forms of moneyed capital, who either were taxed at a different rate or not taxed at all.

Perhaps the most distinctive, though not the most remunerative, form of business taxation is the special tax sometimes levied upon

⁷ *Merchants National Bank of Richmond v. City of Richmond*, 256 U.S. 635 (1921).

⁸ *First National Bank of Hartford, Wisconsin v. City of Hartford*, 273 U.S. 548 (1927).

business franchises. Franchise taxes are imposed for some special privilege which a corporation or other business unit has received, such as the use of city streets or rights of way. New York, for example, treats the use of public property by a corporation as a special privilege of great value, and taxes the franchises granted to corporations at the same rate as real estate. American local governments issue business licenses to taverns and tax them at substantial rates.

These various forms of business taxes—ad valorem, gross earnings, capital stock, franchise or license taxes—are attempts on the part of government to find more adequate sources of revenue and to compel business to pay its full share of taxes. Business, like most other taxpayers, often protests against what it regards as the iniquity rather than the equity of the tax burden it is obliged to carry. While some of these forms of business taxation will doubtless persist and others disappear, there is a growing tendency to tax corporations as well as individuals on a net earnings or income basis. The federal government has done so since 1913, and in 1933 fifteen States were taxing corporate incomes.

CONSUMPTION TAXES

Consumption taxes represent a form of taxation radically different from either property or business taxes. For the most part they are levied upon commodities that are widely used. Among the oldest forms of taxes, they have come to be an important source of income in a well-diversified revenue system. In the United States consumption taxes have been a mainstay of the federal government, which imposes certain internal taxes and at the frontiers collects the customs duties. Until the enactment of our federal income tax law in 1913 the revenues of the federal government were almost wholly derived from these two sources. Both our federal internal taxes and the customs duties are indirect taxes; that is, they are taxes imposed upon manufacturers and dealers in the expectation that they will be passed on to consumers in the form of higher prices. In recent years the States have supplemented the consumption taxes of the federal government with commodity taxes of their own. The best-known example is the gasoline tax imposed for the construction and maintenance of our highways.

Federal internal taxes upon commodities. The internal taxes of the federal government imposed upon commodities intended for consumption are sometimes called excise taxes or duties. They are in contrast to customs duties levied at ports of entry upon imported merchandise. The term "excise taxes" is not very precise, however, and today, through legislative practice and court decisions, it includes a number of taxes that are not taxes upon the consumption of commodities at all.

Until comparatively recently internal commodity taxes have been associated with emergency periods in our history. Soon after the establishment of our federal government, Alexander Hamilton, then Secretary of the Treasury, strongly recommended to Congress the desirability of developing an internal revenue system to supplement the federal income derived from the customs duties. Congress half-heartedly responded by placing an excise tax upon a few commodities, principally liquors and tobacco. The whole system of excise taxes proved exceptionally unpopular. The extreme form of popular discontent occurred in Pennsylvania in the so-called "Whisky Rebellion" which required the armed intervention of the United States. Naturally with so much opposition the new mode of taxation was not particularly productive of revenue. When the Federalists, who were responsible for the legislation, went out of office in 1801, the Republicans, under the leadership of Jefferson, who had described the internal taxes as an "infernal system", promptly repealed all of the obnoxious excise taxes.

Little more than a decade later, however, the Republicans themselves had to revive the system. Customs duties proved grossly inadequate during the disturbed conditions of the Napoleonic period, which included our War of 1812. Internal taxes were levied upon such commodities as liquors, sugar, and carriages. The system collapsed again, however, in 1817 for lack of popular support.

Once more it was revived during the Civil War, and at that time developed to much larger proportions. As usual in national emergencies, customs duties could furnish only a small percentage of the needed revenue. Supplementary sources of income had to be found. These were in part furnished by taxes on consumption. When the war was over, most of these taxes were gradually reduced and re-

moved, but this time the system as a whole was not abandoned. While all other consumption taxes were repealed by 1883, the taxes on liquor and tobacco remained, and they are still a part of our internal revenue system.

The extraordinary demands of the Spanish-American War and of the World War again necessitated the rapid extension of commodity taxes. Among the commodities taxed during one or the other of these periods were automobiles, cameras, chewing-gum, jewelry, patent medicines, rugs, and toilet articles. The tax was paid by the dealer and added to the sale price.

Another form of consumption tax, closely related to the commodity taxes just described, is the tax on admissions and dues. Tickets to amusement places and membership dues in social, athletic, or sporting clubs have paid toll to our Federal Internal Revenue Bureau.

Excise taxes on consumption goods are now an accepted part of our internal revenue system, not only in time of war but also in time of peace. There have been years since these taxes came into vogue when they yielded as much as 40 per cent of the ordinary expenditures of the federal government. The chief revenue producers have been the taxes on liquor and tobacco.

Much has been said in criticism of, and not infrequently vigorous action has been taken against, commodity taxes. Some of them have proved vexatious; they have been called "nuisance taxes". Evasion of tax payment has often occurred. The amount of actual revenue received has at times fallen far short of expectations. But nevertheless such taxes have much to commend them. They conform to most of the criteria of good taxes. They are certain as to amount, convenient as to time of payment, economical in collection, as productive as desired, and easy to understand. They are almost invariably shifted by manufacturer or dealer to the consumer, who pays them in the form of higher prices, usually without distinct consciousness that he is paying a tax at all. It is true that they do not always square with the taxpayer's sense of justice. Certainly they are not graduated to the ability to pay taxes, for whoever buys the commodity must pay the tax, be he rich or poor. It is also often hard to see why certain commodities should be singled out for such taxation, while

comparable commodities escape. Where indirect excise taxes have been most successful, the commodities chosen for taxation have been consumers' goods that were widely used, the demand for which was rather inelastic and which did not belong to the group of goods generally regarded as indispensable to living.

Federal customs duties.⁹ Throughout our history, except for the emergency periods just noted, the chief source of the revenues of the federal government has been the customs duties. Beginning with the World War period the customs duties lost this position of leadership, and it is doubtless lost for good. In every fiscal year beginning with 1917 both income taxes and other internal taxes have yielded greater revenue than the customs duties. The decline in the importance of customs duties, however, is relative, not absolute, for in the fiscal year 1927 the customs duties amounted to \$605,672,465, the largest in our history. What has happened is that our national expenditures are so much greater than ever before that it has been found necessary to develop other and more substantial sources of federal revenue.

Like the excise taxes just discussed, customs duties are essentially taxes on consumption. They are collected from importers at ports of entry, it is true, but ultimately, in the great majority of cases, are incorporated in the prices charged the consumer. They have some of the same merits possessed by excise taxes: certainty as to the tax, convenience of payment, fair economy in collection, and fiscal productiveness under normal trade conditions, if tariff rates are not excessive. What popular favor customs duties enjoy as fiscal measures is largely due to the indirect character of the tax they levy; the burden of such taxes escapes notice more than is the case with direct taxes.

The merits of customs duties as revenue producers have been obscured in the United States by the fact that the protection of home industries, not the raising of revenue, has been the primary consideration in making tariff schedules of duties. This accounts for one of the most serious drawbacks of the American tariff as a form

⁹ For a discussion of the use of customs duties as a means of regulating foreign trade and protecting home industries, see Chapter XXXII, "The Control of Foreign Trade".

of taxation: its perplexing complexity. The present Hawley-Smoot Act (1930), for instance, lays duties upon about 3,200 different commodities in a bewildering combination of ad valorem and specific rates.¹⁰ If revenue were the primary purpose of our tariff, a score or so of wisely selected commodities could be made to yield substantially as much net revenue as we now receive, with an enormous gain in simplicity and understanding. But the chief shortcoming of customs duties as a fiscal device is their unsteadiness. In some years there has been a huge surplus over the country's expenditures; in others, a distressing deficit. Violent fluctuations of income are as demoralizing in a public economy as they are in a private economy. They stimulate extravagance in times of plenty, and they necessitate unexpected sacrifices in times of need. During war periods customs duties usually fall off from the normal return instead of increasing to help meet the national emergency.

State taxation of consumption goods. Indirect taxation, as represented by excise taxes and customs duties, has long been the province of the federal government in the United States. Customs duties are even prohibited to the States by the Federal Constitution. In recent years, however, the States have also begun the taxation of commodities. The necessity of finding larger sources of revenue to meet the ever rising expenditures of government has been responsible for this change in policy. The best-known and most important tax levied by the States upon a commodity is the gasoline tax. Every State and the District of Columbia now levies a tax upon the sale of gasoline, ranging from two to seven cents per gallon.¹¹ More than a billion of dollars are annually spent upon the construction and maintenance of our highways. It would be unfair to throw this entire heavy burden upon the landed property or income taxpayers of the States. The gasoline tax solves the problem. From every point of view it is a good tax. It is certain in amount; it is conveniently paid as one drives; the government can collect it economically from the gasoline distributors; it can be made as productive as desired, for people are hardly apt to give up driving on account of the tax; and it is simplicity itself. Moreover, it is a peculiarly just tax. The automobile

¹⁰ For the distinction between ad valorem and specific duties, cf. p. 793.

¹¹ Figures as of July 1, 1935.

user benefits from good roads, and if he has the ability to buy gasoline he also has the ability to pay the additional tax necessary to make his driving on good roads possible. The transient tourist, who could not be reached by a State through the ordinary means of taxation, helps pay for the roads he uses wherever he goes.

SALES TAXES

Closely related to both business taxes and consumption taxes, and indeed only a variation of them, are different forms of sales taxes. The sales tax was born of fiscal necessity. The severity and duration of the depression of the thirties, with its sharp shrinkage of governmental revenues from the usual sources and its unprecedented demand upon government for relief expenditures, witnessed the rapid extension of various forms of sales taxes. In the United States by July 1, 1935, exactly one half of the States had adopted one form or another of the sales tax, exclusive of the selective sales tax such as the tax on the sale of gasoline, which all had adopted. The rates vary from 0.5 per cent to 3 per cent of the amount of the sales.

The more common forms of sales taxes are four in number; arranged in the order of their inclusiveness they are the retail sales tax, the general sales tax, the gross receipts tax, and the gross income tax. The retail sales tax is primarily based upon retail sales of commodities—but public utility services and admissions to amusements are sometimes included; food products and other necessities are sometimes excluded. The general sales tax includes a tax not only on retail sales but also on sales at wholesale. The gross receipts tax covers all that is taxed under the general sales tax and in addition covers professional and other personal services. Fixed salaries and wages, however, are excluded. The gross income tax is the broadest and most inclusive of the group. In some States it goes so far as to lose its distinctive character as a sales tax. It covers sales both retail and wholesale, property income, professional service income, and even salaries and wages. It is a gross income tax rather than a characteristic sales tax such as the first two mentioned.

The sales tax is plainly a "money-raiser". No one contends that it is wholly equitable and based upon any such principle as the ability

to pay. It is fiscally productive and so an expedient tax to impose in times of great need. A number of States have clearly indicated the emergency character of such taxes by setting a time limit after which they expire. But they can be reënacted, and such taxes once established have a way of persisting as part of the tax system. The tax can be collected fairly easily and inexpensively. It can, if desired, be levied upon selected classes of goods, many of which are luxuries. And there is no doubt that the sales tax forces larger numbers of people to contribute to the support of the government than any other widely used tax.

The sales tax is mainly attacked because it fails to conform to the principle of ability to pay and because it is regressive in effect. There is no question that it bears more heavily upon the poor than upon the well-to-do and rich. Whether its admitted regressiveness should or should not condemn it depends very largely upon whether there are other sharply progressive taxes, such as the income tax, in use at the same time.

INCOME TAXES

As intelligent and intelligible a form of taxation as has yet been devised is furnished by the taxation of incomes. Systems of income taxation have now been adopted by more than fifty nations. Since most taxes must ultimately be paid out of income, regardless of whether the original basis of levy is some form of property or the right to do business or some kind of consumption good, there are advantages in taxing income directly. No nation, however, has as yet devised an income tax law so sweeping in the incomes levels it includes and so progressive in the rates it imposes as to enable it to dispense with all other forms of taxation.

Nature and development of income taxation in the United States. An income tax is a tax upon the income of individuals or business units, which has accrued or actually been received during a specified period of time. At first blush the determination of taxable income may seem very simple. Only a little experience is needed, however, to show how difficult it is to frame a definition of income that is thoroughly satisfactory, both in its logic and for fiscal pur-

poses. For one thing, it is impossible to identify income with cash receipts. To do so would be to obliterate the distinction between capital receipts and income receipts. How hazy the line between capital and income is, the treatment of stock dividends shows. Are stock dividends income? Once our federal statute sought to tax them as such. Later the United States Supreme Court held that they were not income, and consequently they are no longer taxable as income.¹² But realized capital gains, such as arise through the profitable sale of securities, are income. In the second place, the equitable taxation of income has necessitated a distinction between gross income and net income. Failure to draw this distinction would mean to make no allowance for expenditures required to produce the income. Thirdly, some statutes distinguish between different kinds of income, either not taxing some income at all or taxing it at rates different from those applied to the bulk of the taxable income. Massachusetts taxes only selected sources of income. Recent federal income tax laws have distinguished between earned and unearned income. Earned income was defined as arising from the personal efforts of the recipient; unearned income, as coming from capital owned by the recipient. A maximum of \$30,000 of earned income, prior to the revision of the income tax law in 1932, was taxed at a lower rate than the rest of the income. The distinction between earned and unearned income is arbitrary and often misleading. Incomes which appear to come wholly from property are often to a considerable extent due to personal effort. The government dropped the distinction in the fiscal revision of 1932 and then revived it in the Act of 1934. At present 10 per cent of the earned income up to a maximum earned income of \$14,000 may be entered as a credit on the return of the taxpayer and no tax paid on it at all. For practical purposes in the determination of taxable income, the United States Treasury Department has ruled that all income which has been received in the form of cash or its equivalent shall be included in the income tax returns made to the government.

The taxation of incomes has had a curious history in the United States. The successful taxation of incomes at rates high enough to produce substantial revenue is a distinctly recent matter. It was

¹² *Eisner v. Macomber*, 252 U.S. 189 (1920).

not until the Civil War period that the federal government sought to make any use of the income tax. The total inadequacy of the customs duties compelled the development of some substitute form of taxation. An income tax law was passed in 1861, and with many material amendments it remained on the statute books until 1872. It was an unpopular statute, and few regretted its repeal. Its constitutionality was attacked on the ground that it was a direct tax. The Constitution provides that "direct taxes shall be apportioned among the several states . . . according to their respective numbers." The Supreme Court, however, held that the Civil War income taxes were not direct taxes within the meaning of the Constitution. Consequently the total amount of money to be raised from this source did not have to be apportioned among the States in accordance with their population, which would have vitiated the principle upon which the income tax was based. The court held to a strict interpretation of the meaning of "direct taxes" and construed that only poll-taxes and real estate taxes need be so considered. The federal government collected more than \$370,000,000 under the Civil War income tax laws.

About twenty years after the repeal of the law, Congress again faced an emergency. A severe business depression began in 1893. The Democrats, who were in control of the national government, desired to lower the tariff, and they did so in the Wilson-Gorman Act of 1894. The United States treasury needed new and additional sources of revenue. The result of this combination of circumstances was a second attempt to tax incomes—the income tax act of 1894. Naturally its constitutionality was at once challenged. This time the Supreme Court completely reversed the position which an earlier court had taken and declared the law unconstitutional on the ground that it provided for an unapportioned direct tax.¹⁸ Instead of adhering to the historical meaning of direct taxes, the court took the position, generally taken by economists, that the distinction between direct and indirect taxes turns on their incidence; that a direct tax is one that cannot normally be shifted, while an indirect tax is one that is customarily shifted; that the income tax is a direct tax, and

¹⁸ *Pollock v. Farmers' Loan and Trust Company*, 157 U.S. 429 (1894), 158 U.S. 601 (1895).

consequently must be apportioned among the States on the basis of population. The income tax law of 1894 never went into operation, but public sentiment in favor of the income tax seemed to grow after this adverse decision.

After the lapse of another fifteen years, Congress in order to provide more revenue passed a corporation excise tax in 1909 which in effect was an income tax. On the face of it, it was a business tax; it was not levied directly upon the income of corporations; it was an excise tax levied upon corporations, but the amount of the tax was measured by the amount of income the corporations received. This was a subtle and elusive distinction. But the United States Supreme Court upheld the constitutionality of the law.

At the same time, however, public sentiment in favor of a direct income tax was growing rapidly. In 1913 the sixteenth amendment to the Constitution—the income tax amendment—was ratified by the necessary number of States. This provides that “The Congress shall have power to lay and collect taxes on incomes from whatever source derived, without apportionment among the several states, and without regard to any census or enumeration.” Congress promptly enacted the first general income tax law under the amendment in 1913. Since that time income tax legislation has been almost constantly before the treasury, and every Congress has wrestled with it. Amending acts to the Act of 1913 have been passed in 1916, 1917, 1918, 1921, 1924, 1926, 1928, 1932, 1934, and 1935. There is no reasonable doubt today that the income tax has come to stay.

Important provisions of the present (1934 as revised in 1935) federal income tax law. Brief consideration of a few of the most important provisions of the Federal Revenue Act of 1934, amended in 1935, as it applies to the taxation of incomes, will serve to show how it affects the individual taxpayer.

Persons affected. Every unmarried person having a net income of \$1,000 or over for the taxable year or a gross income of \$5,000 or over, regardless of what his net income may be, must file a return showing his income. Every married person having a net income of \$2,500 or over, or a gross income of \$5,000, regardless of the amount of his net income, must file such return. Fiduciaries (i. e. trustees, executors, administrators) must similarly file returns for the trusts or

estates they are administering, provided that in the amount of income involved they fall within the classes just mentioned. Partnerships and corporations must also make returns.

Reporting of gross income. The persons and business units affected by the law are obliged to report their gross income. What forms of income they must report is set forth in the following definition of gross income contained in the statute: "The term 'gross income' includes gains, profits, and income derived from salaries, wages, or compensation for personal service, . . . of whatever kind and in whatever form paid, or from professions, vocations, trades, businesses, commerce, or sales, or dealings in property, whether real or personal, growing out of the ownership or use of or interest in such property; also from interest, rent, dividends, securities, or the transaction of any business carried on for gain or profit, or gains or profits and income derived from any source whatever."¹⁴ It may seem that it would be difficult to receive any income that need not be reported. And yet sweeping as is the definition, the proceeds of life insurance policies, gifts, inheritances, interest on the obligations of States or any other political subdivision of the United States are not considered income at all for taxation purposes.

Allowable deductions. From the gross income reported certain deductions are allowable before any kind of income tax need be computed. These include "ordinary and necessary expenses paid or incurred" in connection with procuring the gross income, but not the personal or household expenses of the recipient; most interest paid; taxes paid or accrued, except the income tax itself and special assessments; property losses sustained and not covered by insurance; worthless debts charged off; reasonable allowance for depreciation; and contributions to public, religious, charitable, scientific, literary, or educational agencies, not to exceed 15 per cent of the net income.

Calculation of net income. The purpose in allowing the above deductions is to arrive at a fair statement of the taxable net income. Net income is simply the gross income less the allowable deductions. Net income is subject to two income tax payments: the normal tax and the surtax. In the computation of each, however, the taxable net income may be further reduced by certain specified credits.

¹⁴ Federal Revenue Act of 1934, Section 22.

Computation of normal tax. In the computation of the normal tax the credits allowed against the net income are much more important than in the computation of the surtax. Included among such credits are dividends received from domestic corporations on the ground that the corporations paying these dividends must themselves pay a corporate income tax. Net taxable income may also be reduced by the amount included within *gross* income which has been received as interest on obligations of the United States, or interest on obligations of corporations created as instrumentalities of the United States. The Revenue Act of 1934 also allows an offsetting credit, for the purpose of the normal tax, of 10 per cent of the earned income. Income up to \$3,000 is presumed to be earned, so that a credit of \$300 may be entered on every return if the size of the income warrants it. The maximum amount that may be considered earned income for the purpose of taking this 10 per cent credit is \$14,000. It is incumbent upon the taxpayer to prove that all above \$3,000 of the amount claimed is earned income, that is, income derived from personal efforts rather than investments. Finally, in order to exempt the recipients of the smallest incomes, the net taxable income may be reduced by the personal exemption and credits for dependents, if any. Single persons may enter a personal exemption credit of \$1,000. Husband and wife together may claim an exemption of \$2,500. For each dependent the taxpayer may subtract an additional \$400 from his net income, provided such dependent is under eighteen years of age or is a person incapable of self-support on account of mental or physical deficiency. What is left of the taxpayer's income after all these offsetting credits have been subtracted constitutes his net taxable income which is subject to the normal rate of taxation. Under the Revenue Act of 1934 all the net income minus credits is subject to a uniform normal tax of 4 per cent.

Computation of surtax. The only credits allowed against net income in the computation of the surtax are the personal exemption and credits for dependents. Both of these are the same as those allowed in the computation of the normal tax, and they may be subtracted from the net income before the surtax rates are applied. The first \$4,000 of surtax net income, moreover, is exempt from the

payment of any surtax. The surtax rates under the Revenue Act of 1934, as amended in 1935, are as follows.

SURTAXES UNDER REVENUE ACT OF 1934, REVISED IN 1935		
<i>Surtax Net Income</i>	<i>Per Cent</i>	<i>Total Surtax on Highest Amount of Income</i>
First \$4,000	None	None
4,000 to 6,000	4	\$ 80
6,000 to 8,000	5	180
8,000 to 10,000	6	300
10,000 to 12,000	7	440
12,000 to 14,000	8	600
14,000 to 16,000	9	780
16,000 to 18,000	11	1,000
18,000 to 20,000	13	1,260
20,000 to 22,000	15	1,560
22,000 to 26,000	17	2,240
26,000 to 32,000	19	3,380
32,000 to 38,000	21	4,640
38,000 to 44,000	24	6,080
44,000 to 50,000	27	7,700
50,000 to 56,000	31	9,560
56,000 to 62,000	35	11,660
62,000 to 68,000	39	14,000
68,000 to 74,000	43	16,580
74,000 to 80,000	47	19,400
80,000 to 90,000	51	24,500
90,000 to 100,000	55	30,000
100,000 to 150,000	58	59,000
150,000 to 200,000	60	89,000
200,000 to 250,000	62	120,000
250,000 to 300,000	64	152,000
300,000 to 400,000	66	218,000
400,000 to 500,000	68	286,000
500,000 to 750,000	70	461,000
750,000 to 1,000,000	72	641,000
1,000,000 to 2,000,000	73	1,371,000
2,000,000 to 5,000,000	74	3,591,000
Over 5,000,000	75	

If a person has a net earned income of \$16,500 over and above all deductions, and if his only credits are the earned income credit and the personal exemption of \$2,500 for a married person, his tax bill is computed as follows:

Normal tax

On \$2,500 personal exemption			No tax
On \$1,400 earned income credit (10% of \$14,000 maximum)			No tax
On \$12,600	@	4%	\$504

Surtax

On \$2,500 personal exemption			No tax
On first \$4,000 surtax net income			No tax
On \$4,000 to \$6,000	@	4%	\$80
On \$6,000 to \$8,000	@	5%	100
On \$8,000 to \$10,000	@	6%	120
On \$10,000 to \$12,000	@	7%	140
On \$12,000 to \$14,000	@	8%	160
Total surtax			\$600

Total income tax

\$1,104

Beginning with the Act of 1935, corporations for the first time pay a slightly graduated tax on their net income. The rates are 12½ per cent on net corporation income up to \$2,000; 13 per cent on that part of the net income in excess of \$2,000 and not over \$15,000; 14 per cent on income between \$15,000 and \$40,000; and 15 per cent on all net income over \$40,000. While partnerships must file a return, any earnings from partnerships are included in the income of the individual partners and taxed accordingly.

State income taxes. In the United States, not only the federal government but also the governments of certain States have incorporated the taxation of incomes into their revenue systems. In 1933 twenty-seven States derived part of their revenues from the taxation of personal incomes.¹⁵ Of these Wisconsin has had the longest successful experience with the operation of an income tax law, its taxation of income dating from 1911. The pronounced success of Wisconsin's income tax law is chiefly due to the creation of a strong centralized State tax commission, which administers the law. The various State income tax laws differ among themselves with reference to the determination of the income to be taxed, and also in regard to the rates of taxation to be levied. Massachusetts, for ex-

¹⁵ Alabama, Arizona, Arkansas, Delaware, Georgia, Idaho, Iowa, Kansas, Massachusetts, Mississippi, Missouri, Montana, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, Tennessee, Utah, Vermont, Virginia, Washington, and Wisconsin all levied taxes on personal income, in part or whole, and most of them on the income of corporations as well.

ample, taxes only certain forms of income. New York taxes its own residents on all their income from whatever source derived, and in addition taxes non-residents on that part of their income earned in New York. (This practice principally affects Connecticut and New Jersey "suburbanites" working in New York.) Wisconsin purports to tax only the income which originates in the State but in practice has defined this in such a way that it includes substantially all forms of income except income from out-of-the-State real estate. In general, State income tax laws are based on the same principles as the federal statute and support the same general conclusions. It is altogether probable that the principle of the State income tax will be retained rather than abandoned in the future, particularly as it becomes increasingly burdensome to increase taxes from other sources.

Is the income tax a good tax? By all the commonly recognized criteria of what constitutes a good tax, income taxation must be accepted as a sound and desirable element in a country's revenue system. The tax is usually certain; given the amount of taxable income (which is sometimes hard to determine) and the rates of taxation as fixed by the law, it is easy to compute the amount of one's income tax. It can be made as convenient a tax to pay as any other kind of tax. (No tax, however convenient, is ever apt to cause taxpayers to jostle each other in their eagerness to pay taxes in the way in which theater or prize-fight patrons, for example, throng the box office.) While a considerable organization is necessary to administer the income tax, the tax is economical because the cost of collection is small in comparison with the sums collected. From the point of view of productiveness, the tax is ideal, because it is levied upon a base that represents real ability to pay. Moreover its productiveness is flexible; rates can readily be advanced when the state of the public treasury requires it. The basic idea in an income tax is readily grasped; the intricacies of an income tax law often baffle the experts. On the counts of certainty, convenience, economy, productiveness, flexibility, and simplicity the income tax ranks high as a mode of taxation.

But the chief merit of the income tax is its essential justice. It is based squarely upon the principle of ability to pay. It is hard to

conceive of a fairer tax, since ultimately almost all taxes must be paid out of income anyway. It gathers a large tax when the income is big, and a small tax or none at all when the income shrinks to small proportions. It lends itself perfectly to graduated taxation. Small incomes can be exempted entirely, and higher rates can be imposed upon the larger incomes, where the ability to pay is greater. Care must be taken, however, that the surtax rates are not made so heavy as to stimulate evasion, which is demoralizing to all concerned.

It is all too true, however, that the popularity of an income tax depends very largely on the number of people who are exempt from it, or as Professor Charles J. Bullock has recently put it, "An ideal tax is a tax paid by some other fellow." But while the equitable taxation of incomes presents many formidable difficulties, none of these is insurmountable.

At one time it was supposed that the tax was altogether too inquisitorial ever to win the support of the American people. But it is today an established tax. Much has been said about the repressive effect of an income tax upon industry, because of its alleged restriction upon the accumulation of capital. The plethora of capital funds seeking investment would seem to indicate that this objection is not very well founded. It has been described as a class tax, particularly on account of the progressive rates of taxation. True it is that, per dollar of income, the income tax bears more heavily on the rich than on the poor. But this is the essence of the ability-to-pay principle. What is more, some taxes, notably property and consumption taxes, bear more heavily upon the poor than they do upon the well-to-do and rich. Intelligent care by experts in drawing an income tax law, together with honest and efficient administration of the law, should in time successfully meet every adverse criticism of income taxation.

ESTATE AND INHERITANCE TAXES

Difference between estate and inheritance taxes. In the United States today, both the federal government and the States, excepting only Nevada, tax the transmission of property from the dead to the living. Death is certain; its occurrence usually requires the transfer

of some property; this is a propitious occasion for the collection of a tax either upon the property as a whole or upon the separate legacies. The United States government imposes an estate tax; almost all the States levy inheritance taxes; a few States levy both estate and inheritance taxes. The difference between an estate and inheritance tax is this: an estate tax is imposed on the "right to transmit property" and the rates are applied to the net value of the estate as a whole; an inheritance tax is imposed on "the right to receive" property and the rates are applied to the separate legacies of the beneficiaries. Not only the United States but virtually every other country imposes either an estate tax or an inheritance tax.

How the federal government taxes estates. Under the United States Revenue Act of 1935 the executor or administrator of an estate is obliged to prepare an inventory of all the property of the deceased and to state its fair value. From the gross value of the estate certain deductions may be made in establishing the net value of the estate for taxation purposes. These deductions include expenses properly chargeable against the estate, such as claims and debts, funeral expenses, and expenses incidental to the administration of the estate; bequests made for public, religious, charitable, scientific, literary, or educational purposes; and a flat exemption of \$40,000. Upon the net estate the federal government imposes a progressive tax, ranging from 2 per cent on estates not in excess of \$10,000 to 70 per cent on that part of estates exceeding \$50,000,000. The tax so imposed, however, may be credited with the amount of any inheritance taxes paid to the States up to a maximum of 80 per cent of the tax due the federal government under the rates and deductions including the \$100,000 exemption of the Revenue Act of 1926. It may seem anomalous to subtract from estate taxes due under the rates of the Revenue Act of 1935 credits allowed under the Act of 1926. The reason is simple, however. Under the Acts of 1935, 1934, and 1932, the rates of estate taxation were sharply advanced, the present maximum rate of 70 per cent being three and one-half times as high as it had been in 1926. If the increased federal estate taxes could be offset 80 per cent by inheritance taxes paid the States, the States would find it to their interest to readjust their own rates so as to absorb this maximum amount of 80 per cent, and

in consequence the federal government would receive relatively little additional revenue. By allowing the same offsetting credits as provided in the Revenue Act of 1926, Congress did not disturb the existing relation with the States, and at the same time it secured for the federal government the entire increase in revenue attributable to its own advance of the rates of estate taxation.

How the States tax inheritances. The practice of the forty-seven American States which tax inheritances has been very confusing. Not until recently were there any promising indications that the chaos would some day be less. The States have different policies with reference to the taxation of real and personal property, of tangibles and intangibles. Much of the confusion is due to the eagerness of the States, prompted by their own fiscal needs, to get all the revenue they can. Consequently they tax what they can find within their own tax jurisdictions.

It is the universal practice for the State of which the deceased has been a resident to tax his entire estate, although the tax is usually charged against the beneficiaries on the separate legacies they receive. The real property of the estate, however, is almost always taxed only at situs. The estate of a Wisconsin decedent owning real estate in Michigan, for example, is taxed only by Michigan on the Michigan real estate.

If the deceased owned the stocks and bonds of corporations chartered by States other than the State of his domicile, his estate until recently had to pay inheritance taxes to the State or States of incorporation before the securities could be transferred to the new owners. As a result of an adverse decision by the United States Supreme Court in 1932 this practice has been dropped; at present the only such taxes which must be paid are the ordinary taxes payable to the State and federal governments upon the transfer of securities from one owner to another. In the case of coupon bonds, which are not registered and are payable to bearer, the attempt of a State to collect a tax from the estate of a non-resident decedent is usually futile, unless the bonds happen to be on deposit or in custody somewhere in the State.

Some States seek to tax intangibles, like corporation securities, even though the deceased was not a resident of the State and the

corporations involved are chartered in other States. The mere physical presence of the securities in the State, such as in some safe deposit box, is the basis of a claim for taxes.

Some States have even sought to tax the transfer of stocks of corporations not incorporated in the State when held by non-resident decedents merely because the corporation concerned held property or did business within the State. This practice, however, the United States Supreme Court has declared illegal on the ground that the State imposing such a tax lacks jurisdiction.¹⁶ Obviously, in the case of a non-resident decedent it had no tax jurisdiction over the person of the deceased. In this case the court held that the State was also without jurisdiction over property, since the property on which the tax was based belonged to a corporation chartered by some other State and not directly in part to the deceased individual.

State inheritance laws allow the same types of deductions that are recognized in the federal statute. The amount that is exempt is usually small and varies markedly not only from State to State, but also with the degree of relationship between decedent and beneficiaries. The rates vary from 1 to 40 per cent. They are characteristically progressive with reference both to the relationship between the deceased and the beneficiaries and to the amount of the legacy. The rates are typically low if the beneficiaries are close relatives, such as spouse, children, or parents. The rates rise sharply where there is remote relationship or no relationship at all; Wisconsin, for example, provides for a 40 per cent tax under certain conditions. For each class of beneficiaries the rates are progressive with the increasing size of legacies.

Are estate and inheritance taxes good taxes? Hardly any tax can be more easily or fully justified than a tax upon the transmission of property from the dead to the living. Whether it be a tax upon the net value of the estate as a whole or upon the value of each legacy is a matter of detail. Inheritance taxes (popularly the term is used to cover estate as well as inheritance taxes) conform to both the *benefits-received* and the *ability-to-pay* principle of taxation. The right to direct what disposition shall be made of one's property after death is neither a natural right nor a right inherent

¹⁶ Rhode Island Hospital Trust Co. v. Doughton, 270 U.S. 69 (1926).

in the institution of property. It is a right conferred by the State; in both Great Britain and the United States it is conferred by statute. The State which grants the right of inheritance, and thereby confers a benefit upon the recipient of a legacy, may very properly place any reasonable limitation that it sees fit upon the right of inheritance. Taxation of the inheritance is such a limitation. The service that the State renders the recipient of a legacy by maintaining the institution of inheritance is so valuable to him that he can well afford to pay a tax for the benefit received. This is looking at the justice of the tax from the point of view of the beneficiary. But the benefits principle is just as applicable from the point of view of the person who bequeaths his property. All accumulations of property are made as a result of the security furnished by the State. In a very substantial way the State is the partner of the individual in the accumulation of wealth. The collection of estate and inheritance taxes is a thoroughly justifiable way for the State to participate in the results of this copartnership.

Fully as effective an argument for inheritance taxes can be based upon the principle of ability to pay. The transfer of property to new owners usually conveys the requisite ability to pay taxes. The beneficiaries are normally anxious to get control of the property to which they are legally entitled and are willing to pay the necessary inheritance taxes, even if this means the liquidation of some of the assets of the estate. The dead are not present to protest. Inheritance taxes catch property "on the wing". They are imposed after the demise of the former owner and before the property can legally come into the possession of the new owners. Consequently such taxes, large as they sometimes are, are much more easily borne than most taxes.

In addition to the sheer justice of such taxes, inheritance taxes have the usual merits of good taxes. Under well-drawn laws, except for the possibility of conflicting tax jurisdictions, they are certain, convenient as to time of payment, and economical in collection. Their productivity, however, is apt to fluctuate, particularly in the less populous taxing districts.

Quite apart from their justification as desirable fiscal measures, inheritance taxes are defended as means for promoting the diffusion of wealth. Andrew Carnegie is a conspicuous example of a man of

great wealth, who a generation ago advocated steeply progressive inheritance taxes; he argued that the government should take as much as 50 per cent of the estates of millionaires. Government, federal and State, is doing more than that now when estates amount to more than \$10,000,000. It is a fact that in virtually every country wealth is very unequally distributed. Usually a very small percentage of the people own a very large part of the country's wealth. Excessive concentration of wealth is a menace to a democracy. But unless there be evasions and subterfuges, all this wealth must change hands every generation. Here is the opportunity for the imposition of a severe inheritance tax that will aid in redistributing wealth, if the government is minded to enact such a law. The federal revenue acts of 1934 and 1935 go incomparably further in the direction of wealth redistribution than any previous estate and inheritance tax laws enacted by Congress. It remains to be seen whether they will accomplish their purpose and what the effects will be.

The use of inheritance taxes, however, easily lends itself to abuse. Multiple taxation of the assets of an estate by governments claiming jurisdiction, which in some cases has resulted in piling up tax claims amounting to more than 100 per cent of the value of the estate, is a conspicuous example of such abuse. Inheritance taxes, moreover, can be so heavy as to handicap the accumulation of capital. It is doubtful that inheritance taxes actually discourage men in "making money". It is conceivable that they may discourage men in saving money. Men "make money" for the love of the game, and for the power, prestige, and life of leisure which the possession of money makes possible. Men save money in part because they wish to provide for their own security and the future of their children. If the inheritance tax rates, however, are neither confiscatory nor so high as to discourage effort, it is an open question whether they may not actually stimulate men to work and to save the more in order to provide what they regard as an adequate net estate for their children. Finally, there is the contention that very high rates of inheritance taxation may mean the use of capital for current expenditures. This is the favorite objection of those who oppose the taxation of inheritances. To use capital for current expenses, they say, is as improvident as to eat up the supply of seed corn. Inherit-

ance taxes, they contend, tear down that which it has taken a lifetime to build up. They penalize the thrifty and allow the spendthrift to go free. Is there any truth in this contention? It all depends. If inheritance taxes are used as substitutes for other taxes, and if in consequence some persons can save more than would otherwise be possible, there is at least an offset here to the dissipation of capital. It depends, furthermore, on what use the government makes of the inheritance taxes it collects. If these are used for productive purposes, there is no capital loss to society, even though individuals may have lost some of their assets. On the other hand, there is always a chance that inefficient or dishonest government may squander its inheritance taxes in riotous living. In the United States it cannot be seriously argued that inheritance taxation has resulted in the dissipation of capital; the value of our capital is upwards of 300 billions of dollars and hardly more than 200 millions of dollars has until recently been collected annually by the federal and State governments in the form of inheritance taxes.

SOURCES OF PUBLIC REVENUE IN THE UNITED STATES

Some idea of the relative importance of these different forms of taxation in the revenues of the United States government, the States, and larger cities may be gathered from the tables and diagrams, given on pages 744 to 747, for selected years prior to the great depression.

THE SHIFTING AND INCIDENCE OF TAXES

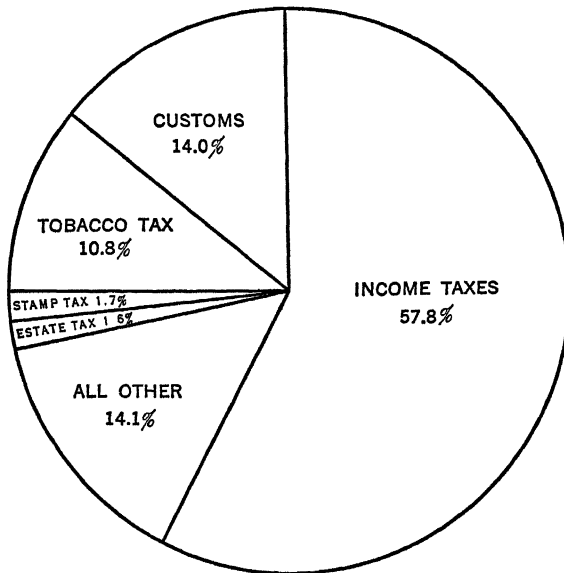
In all forms of taxation, such as the six principal types just considered—taxes on property, business, consumption, sales, income, and inheritance—a question of major importance is this: Can the tax be shifted, or must it be borne by the person against whom it is charged? "Shifting" means transferring the burden of the tax. The person who first pays the tax reimburses himself in subsequent price transactions. By the "incidence" of a tax is meant the final location of the burden of the tax. Some taxes are regularly shifted, and when levied it is expected that they will be shifted; the burden of

ORDINARY RECEIPTS OF FEDERAL GOVERNMENT CLASSIFIED
ACCORDING TO MAJOR SOURCES FOR THE
FISCAL YEAR 1930 ¹⁷

<i>Classes of Ordinary Receipts</i>	<i>Millions of Dollars</i>	<i>Per Cent of Total</i>
<i>Receipts from taxation:</i>		
Customs	587.0	14.0
Internal revenue		
Income taxes	2,411.0	57.8
Miscellaneous internal revenue		
Tax on small cigarettes	359.8	} 10.8
All other tobacco taxes	90.5	
Stamp tax on capital stock transfers	46.7	} 1.7
Stamp tax on bonds and capital stock issues, etc.	22.6	
Estate tax	64.8	1.6
All other internal revenue	43.9	
Total miscellaneous internal revenue	628.3	15.0
Total receipts from taxation	3,626.3	86.8
<i>Miscellaneous receipts:</i>		
Proceeds from government-owned securities		
Foreign obligations	239.5	
All other	20.3	
All other receipts, including trust funds	291.8	
Total miscellaneous receipts	551.6	13.2
Total ordinary receipts	4,177.9	100.0

others rests where it is imposed. Of the taxes that are shifted some are shifted in part, others *in toto*, and still others by more than the amount of the tax. The shifting of taxes should not be confused with the evasion of taxes. When a tax is evaded, the government receives no revenue. The tax in question simply is not paid by anyone. When a tax is shifted, the government receives the revenue from the person against whom it is levied, but he passes the burden on to someone else. He acts as the government's collection agency.

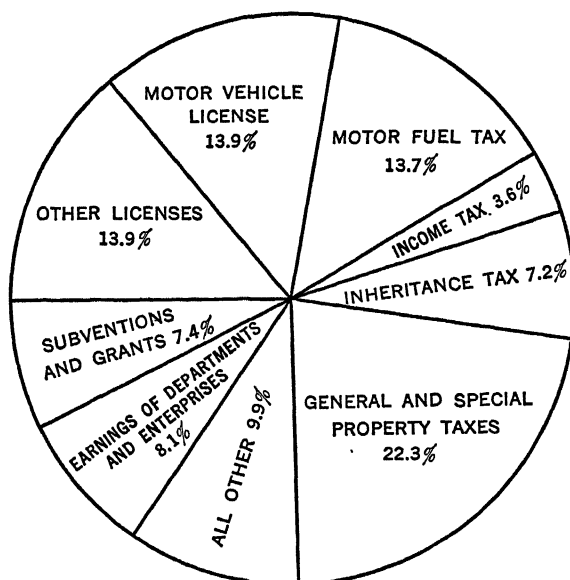
¹⁷ Includes adjustment to basis of daily Treasury Statement (unrevised). Taken from *Annual Report of the Secretary of the Treasury on the State of Finances, 1930*, p. 3.



MAJOR SOURCES OF FEDERAL GOVERNMENT REVENUE
RECEIPTS, 1930

There is no more perplexing question in the whole field of public finance than that of the shifting and incidence of taxes. It is important because the ultimate incidence of the tax determines where the real burden of the tax rests. Can a given tax be shifted? The answer to this question depends upon the answer to still another question, namely, What is the effect of the tax upon the future demand for and supply of that which is taxed? If the demand for a taxed good, such as tobacco, is relatively inelastic, the chances are that the tax will be completely shifted and the consumer will pay the tax rather than go without the good or reduce his consumption. On the side of supply, taxes can ordinarily be shifted only when they bring about an increase in the cost of operation for all producers affected. This usually results in decreased output because some of the producers, particularly those near the margin, cannot stand the financial strain of selling at a loss. Decrease in the output permits higher prices. Whenever it is possible to secure higher prices, it is possible to shift the tax. If the tax, however, is imposed upon

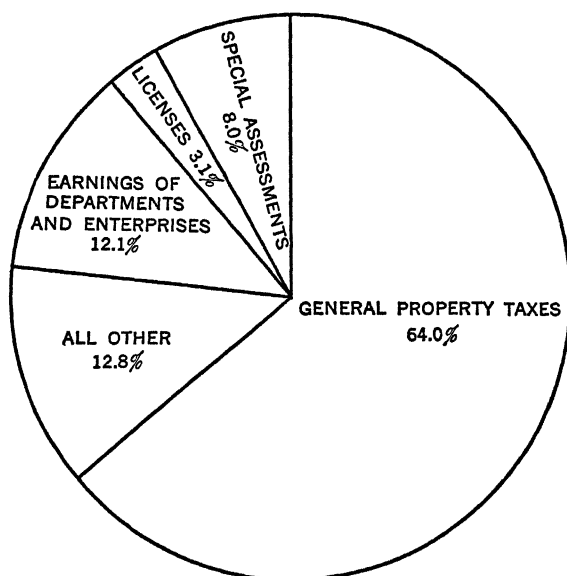
FORMS OF TAXATION



MAJOR SOURCES OF REVENUE RECEIPTS OF STATES, 1929

REVENUE RECEIPTS OF STATES FOR 1929 ¹⁸		
<i>Revenue Receipts</i>	<i>Thousands of Dollars</i>	<i>Per Cent of Total</i>
General and special property taxes	458,084	22.3
Inheritance taxes	148,592	7.2
Income taxes	74,595	3.6
Other special taxes	69,176	3.4
Poll-taxes	3,542	0.2
Motor fuel taxes	282,579	13.7
Motor vehicle licenses	287,070	13.9
Other licenses	287,323	13.9
Special assessments and special charges	30,543	1.5
Fines, forfeits, and escheats	7,909	0.4
Subventions and grants, etc.	151,546	7.4
Highway privileges, rents and interest	90,489	4.4
Earnings of general departments	149,873	7.3
Earnings of public service enterprises	17,006	0.8
Total revenue receipts	2,059,327	100.0

¹⁸ Compiled from *Financial Statistics of States*, 1929, Table 3, p. 56, and Table 7, pp. 64 and 66.



MAJOR SOURCES OF REVENUE RECEIPTS FOR CITIES OF
30,000 POPULATION AND ABOVE, 1928

REVENUE RECEIPTS FOR CITIES OF 30,000 POPULATION AND ABOVE, 1928 ¹⁹		
<i>Revenue Receipts</i>	<i>Thousands of Dollars</i>	<i>Per Cent of Total</i>
Taxes		
General property	1,993,265	64.0
Special	69,956	2.2
Poll	5,355	0.2
Business and non-business licenses	95,488	3.1
Total from taxes	2,164,064	69.5
Special assessments and special charges	249,562	8.0
Fines, forfeits, and escheats	18,881	0.6
Subventions and grants, donations and pension assessments	166,289	5.3
Highway privileges, rents, and interest	140,657	4.5
Earnings of general departments	76,758	2.5
Earnings of public service enterprises	297,958	9.6
Total revenue receipts	3,114,169	100.0

¹⁹ Compiled from *Financial Statistics of Cities, 1928*, Table 3, p. 150.

something the supply of which cannot readily be changed, it is difficult, if not impossible, to shift the tax. To shift taxes one must have power over the supply so as to be able to raise the price.

A few illustrations of common taxes will serve to show the application of this basic principle underlying shifting. A general poll-tax of \$2 for every person between the ages of twenty-one and sixty-five could not in any very likely way be shifted. There is no one to whom the tax can be passed on in subsequent business transactions. It must rest where it is imposed.

A personal property tax on consumption goods in the possession of the final consumers—a tax on pianos or automobiles, for example—cannot be shifted. Here again there is no price transaction, subsequent to the imposition of the tax, which could be affected by the tax.

A tax on the income of land, known as its economic rent, or on the value of land obtained by the capitalization of its economic rent, cannot be shifted. When the government taxes the income of land and the land values based upon such income, it virtually takes for its own permanent use part of the value of the land. When the tax is imposed it must be borne by the owner of the land. It cannot be shifted, for subsequent purchasers, if they are intelligent, will capitalize only the new net income of the land. A 160-acre farm, yielding a net income of \$10 per acre, if the current rate on farm investments is 5 per cent, may be said to be worth \$32,000. But if a new tax of \$1 per acre is imposed, the net income is decreased correspondingly, and, other conditions remaining constant, the farm will now be worth only \$28,800. A new land tax must be borne by the owner at the time; an old land tax is capitalized and deducted from the price offered at the time of purchase. This is what is meant by saying, though the statement is not strictly true, that old land taxes are "burdenless taxes". It is true, however, that a new tax on land income cannot be shifted by charging higher rent, for presumably the landowner is already getting the full economic rent; or by charging higher prices, for these are determined at the margin where there is no economic rent to be taxed.

In general, personal income taxes and inheritance taxes cannot be shifted. There is no one beyond the income recipient or the bene-

ficiary to bear the tax. Similarly, taxes on monopoly profits cannot be passed on. These are taxes on surplus. In fixing the price of what it has to sell, the monopoly has already arrived at a figure which will yield the highest net returns. The imposition of a tax on monopoly profits will not change the price at which the most profitable business can be done.

The situation with reference to shifting, however, is very different in the case of certain business taxes, sales taxes, excise taxes, and customs duties. In general, these are shifted, as a whole or in part. Under certain conditions they may not be shifted at all, but at other times they are pyramided as they are passed on, so that the ultimate increase in price is greater than the original tax. Such taxes are normally shifted, not because the tax stimulates demand for the good that is taxed, but because it tends to restrict the supply. The imposition of the tax raises the cost of production for all producers directly affected by the tax. The demand is apt to decline with an increase in price. This causes loss to marginal producers, and such sub-marginal producers as have been "hanging on" in the desperate hope that conditions would improve. With the elimination of some producers and the resulting curtailment of supply, an increase in price becomes possible. This restores the usual rate of profits and amounts to a shifting of the tax. The shifting of taxes is not as general as is popularly supposed. If it were, taxes new and old would hardly meet with the vigorous opposition they usually encounter, but would be welcomed as an opportunity to "make a little extra money" through the shifting process.

CHAPTER XXX

PUBLIC LOANS AND DEBTS

Governments, like individuals, sometimes find it difficult to live within their incomes. Some are chronically in debt. It is hard to see how some will ever escape. Some have bowed to what they regarded the inevitable and have accepted the odium of bankruptcy. Others, on the contrary, have borrowed when stern necessity gave them no choice, but have met their obligations as they matured and have permitted no blot on the escutcheon of their fiscal honor. Some few have been fortunate enough not to experience the difficulties of debt at all.

THE MAGNITUDE OF PUBLIC DEBTS

How staggering both the possibility and actuality of public debt burdens are is best understood when we remember that almost every unit of government has the constitutional or legal right to borrow money. Not only the nation and State, but counties, cities, villages, towns, boroughs, as well as school, drainage, fire, road, and poor relief districts (and this list is not exhaustive) all may borrow money. Taxpayers the world over are groaning under an accumulation of public debts that in some places seems, and in others actually is, impossible to bear. The division of government that is free from debt is the exception rather than the rule.

Most conspicuous and best known among public debts are the large national debts. In order to have some standard of comparison it is well to note that prior to the World War the national debt of the United States was about \$1,000,000,000. Until recent years the peak of our national debt had stood at \$2,844,000,000, a sum reached in August, 1865, and for which the Civil War was almost wholly

responsible. Present national debts, not only of the United States but of European countries, offer a striking contrast to these figures. They demonstrate in an inescapable way what colossal financial burdens war entails. What might have been done in a constructive way for the promotion of social welfare through the expenditure of an equal amount of money must be left to the imagination to contemplate. The following table shows the increase in the national debts of certain leading countries during the War period; the totals have been made comparable by reducing the figures for the last fiscal year to the 1913 base. Expressed in the currency of 1919 or after, and consequently uncorrected for changes in the purchasing power of money, they would of course be vastly larger.

GROSS NATIONAL DEBTS OF CERTAIN LEADING COUNTRIES BEFORE AND AFTER THE WORLD WAR ¹

Country	<i>At Close of Fiscal Year Next Preced- ing Aug., 1914, in Dol- lars at Ex- change Parities (000,000 Omitted)</i>	<i>Debt Per Cent National Wealth</i>	<i>At Close of Fiscal Year 1919 or 1919- 20, in "1913" Dollars (000,000 Omitted)</i>	<i>Debt Per Cent Pre- War Wealth</i>
Austria-Hungary	3,956	13.19	7,672	25.57
France	6,598	11.40	9,655	16.67
Germany	1,285	1.60	6,362	7.90
Great Britain	3,436	4.91	12,843	18.35
Italy	3,034	13.92	3,354	15.38
Russia	4,541	7.77	9,485	16.24
United States	1,188	0.67	9,999	5.00

A decade after the close of the war, the national debts of these countries stood at the following figures.

¹ Harvey E. Fisk, *The Inter-Ally Debts* (New York: Bankers Trust Company, 1924), pp. 324, 340. "1913" dollars were obtained by dividing the actual or currency figures for a year by the average wholesale price index number for that year. Also cf. League of Nations, *Memorandum on Public Finance*, 1922 (Geneva, 1923) for pre-war and post-war debt figures.

GROSS NATIONAL DEBTS OF CERTAIN COUNTRIES IN 1927 OR 1928

Country	Date	In Domestic Currency of 1927	In Dollars Con- verted at Par of Exchange
Austria- Hungary ²			
France ³	September 30, 1927	466,641,000,000 Paper Francs	\$18,300,000,000
Germany ⁴	March 31, 1927	4,351,212,000 Reichsmarks	1,036,459,000
Great Britain ⁵	March 31, 1927	7,652,688,000 Pounds Sterling	37,241,806,000
Italy ⁶	December 31, 1927	182,405,640,000 Lire	9,594,672,000
Russia ⁷	March 1, 1928	1,341,000,000 Gold Rubles	690,615,000
United States ⁸	June 30, 1927	18,510,174,266 Dollars	18,510,174,266

Less conspicuous than the national debts, but by no means negligible, are the public debts of intra-national governmental units. A recent survey by the United States Census Bureau placed the net public debt (gross public debt less sinking fund assets) of the people of the United States at the close of 1932 at \$39,411,404,000. Of this amount, \$21,834,565,000 represented the debt of the national government (fiscal year ending June 30, 1933), and \$17,576,839,000, the debt of State and local governments. The distribution of the public debt was as follows: ⁹

² Austria-Hungary: Debt was apportioned among successor states.

³ France: *U.S. Department of Commerce Year Book for 1928*, V. 2, p. 276.

Foreign obligations converted at approximate exchange rates in September, 1927. Paper francs converted at \$0.0392.

⁴ Germany: *Ibid.*, p. 296. Debt is exclusive of reparations obligations. Inflation practically canceled the public debt. Reichsmarks converted at \$0.238.

⁵ Great Britain: *Ibid.*, p. 646. Pounds sterling converted at \$4.8665.

⁶ Italy: *Ibid.*, p. 377. Debt includes obligations of 600,000,000 pounds sterling to Great Britain, \$2,032,000,000 to the United States, and the unpaid balance of the Dollar Loan of 1925 amounting to \$96,895,000. Lire converted at \$0.0526 as stabilized on December 22, 1927.

⁷ Russia: *Whitaker's Almanac for 1928*, p. 808. Rubles converted at \$0.515. The Soviet Government has not assumed the obligations of the Czarist Government.

⁸ United States: *Annual Report of the Secretary of the Treasury for the Fiscal Year Ending June 30, 1927*, p. 670.

⁹ U.S. Department of Commerce, Bureau of the Census, *Financial Statistics of State and Local Governments: 1932*, pp. 2, 4. The report covers all the States, 3,062 counties, 16,442 cities, towns, villages, and boroughs, 128,548 school districts, 19,978 townships, and 14,572 other civil divisions, or a total of 182,651 political units that have the power to incur debt. The debt of the federal government had increased to \$28,700,892,624 by June 30, 1935. More recent data for the other political units were not available.

PUBLIC LOANS AND DEBTS

753

National government	\$21,834,565,000
State governments	2,360,958,000
Counties	2,390,830,000
Cities, towns, villages and boroughs	8,842,189,000
School districts	2,039,852,000
Townships	343,879,000
Other civil divisions	1,599,131,000
Total	<u>\$39,411,404,000</u>

JUSTIFICATION OF PUBLIC DEBTS

What justification, if any, is there for such large-scale public borrowing? Why should not the state live within its income? There are two obvious reasons. One is the necessity of borrowing to provide immediate funds for investment in public works. The other is the necessity of borrowing to meet the extraordinary expenditures of a great national emergency, like war. The former is the chief cause of all local public debts. The latter accounts for much the greater part of the national debts of the world.

Public debt due to investment in public works. Public indebtedness that is incurred in order to provide funds for public works is sometimes an investment on capital account, and at other times an investment in non-income-producing improvements. Whenever a government undertakes large-scale capital enterprises, such as the construction or acquisition of municipal utilities, the construction and operation of railroads or other communication systems, it neither can nor ought to meet the entire cost of such enterprises out of current revenues. To try to do so would mean the imposition of an undue, and frequently unbearable, burden upon a given generation of taxpayers. The government is fully justified in borrowing for such purposes. Such government loans, together with the interest upon them, can gradually be repaid out of the earnings of the public enterprises. If this proves impossible or for some other reason socially undesirable, the operating deficit and loss on the capital investment must of course be met out of taxes.

There are also non-income-yielding public works which require the initial expenditure of large sums. The construction of governmental buildings and school-houses, of streets and highways, furnishes instances in point. Some governments find it impossible to

deprive such expenditures out of current revenues and consequently must borrow the required funds. Such cases of borrowing, however, present some elements of danger. It is important that the loans should be completely extinguished during the life of the improvements. Public works that have passed on are about as cheerfully paid for as dead horses. If the making of non-income-producing improvements is regularly recurrent, it is wiser to anticipate such needs in the levying of taxes than to resort to the public credit.

If all, or most, of the public debt of the world represented investments in public improvements, it would not present a very serious problem. But most of it has been incurred to meet disasters that have confronted the nations of the world, rather than to build public works. Public debts are mainly due to the disaster of war.

Public debt due to war. War is like a great holocaust—it calls for emergency action. This is true not only in supplying men and materials, but also in providing money. In war money is needed at once. The problem is how to get it. The chief source of governmental revenue is taxation. To get all or even the greater part of the money needed through the regular channels of taxation is impossible for even the wealthiest nations. One reason is that the levying and collection of taxes require much time. And loss of time may spell defeat, if the enemy is more fortunately situated. Moreover, to try to collect all the needed war funds by immediate taxation would have a very disrupting influence upon the economic life of a nation, at the very time when the maximum efficiency is imperative. Taxes that are beyond the most heroic efforts of a people to bear would have so disturbing an effect upon their morale as to invite disaster. There are always some idle savings, however, or some capital that is not permanently invested, which can be borrowed by the government and mobilized for war. A policy of governmental borrowing is also apt to stimulate necessary saving in a way in which a policy of drastic taxation will not. For these reasons it is not surprising that, confronted by the fact of war, every nation in the past has seen fit to borrow. Some nations, moreover, wrongly guided by short-sighted leaders, have borrowed almost the whole of their war expenditures. Both France and Germany in the World War counted heavily upon the receipt of reparations from the vanquished enemy

with which to repay a large part of the amounts they had borrowed. The World War period witnessed the most extensive borrowing the world has known. Of the major powers only Great Britain and the United States raised any very substantial part of their war-time revenues through taxation. The direct money outlay of Great Britain on account of the war, inclusive of net loans to her allies, was about forty-four billions of dollars, of which about one fourth came from taxation.¹⁰ The money cost of the war to the United States, in spite of our late entrance into the war, attained the same proportions as that of the leading European belligerents. Inclusive of the loans to our associated powers (the full recovery of which is very much in doubt), our direct total expenditures on account of the war through the fiscal year ending in 1920 amounted to over thirty-six billions of dollars.¹¹ Of this amount about one third was raised by taxation. The total direct cost of the war to all the belligerent nations, when reduced to dollars at par of exchange, was over \$208,000,000,000. This total makes no allowance for changes in the purchasing power of the currencies of the warring nations, resulting from whatever degree of inflation existed. When corrected for such changes in purchasing power by reducing "current dollars" to "1913 dollars", the direct money cost of the war still approximates eighty billions of dollars in gold. Only about 3 per cent of the war-time receipts of the belligerent nations over and above their normal pre-war revenues were raised by taxation; all the rest was borrowed either at home or abroad.¹²

While the necessity of obtaining immediate war funds in such a way as to disturb economic life as little as possible justifies some borrowing, it does not excuse a nation for failure to raise any considerable part of the cost of war through taxation. The government that fails to tax its citizens heavily during the period of war literally misses a golden opportunity to impose heavier taxes at a time when patriotism runs high and taxes will be borne more cheerfully than

¹⁰ E. L. Bogart, *Direct and Indirect Costs of the Great World War* (New York: Oxford University Press, 1919), pp. 39-42; also Harvey E. Fisk, *The Inter-Ally Debts* (New York: Bankers Trust Company, 1924), p. 325.

¹¹ Fisk, *op. cit.*, p. 325.

¹² Fisk, *op. cit.*, p. 5. Cf. also E. R. A. Seligman, "The Cost of the War and How It Was Met," *American Economic Review*, IX (1919), 770.

at any other time. There are also war profits which can and ought to be "conscripted". If the government unhesitatingly conscripts men for military service, with the certainty that many will never return alive, why should it not "conscript" war profits, particularly when such taxation still leaves all the productive capital intact? In every war there is either previous extravagance which must be curbed, or extravagance which arises out of the war itself. In either case, why should not the government take advantage of the situation both to raise necessary revenue and to exercise what control it can over unnecessary consumption? The *physical cost* of every war must be met with lives and goods in being, no matter how the war is financed. The best time to meet as large a part as possible of the *money cost* is while the war is on. To meet all of the money cost of a war, as well as the costs of reconstruction, through taxation after the war is over, even though the system of taxation is equitable, is apt to prove intolerable. It is possible to wage a great war efficiently with funds almost wholly borrowed. Both France and Germany did it. But the post-war effects of such almost exclusive reliance upon the public credit are apt to prove disastrous. The whole German financial structure collapsed. France barely escaped a complete debacle of her financial system by resorting to the revalorization or devaluation of the franc at about one fifth of its former value.

ECONOMIC EFFECTS OF PUBLIC DEBTS

What are the more important economic effects of the large-scale use of public credit? Since the overwhelming public debts of the world, directly and indirectly, are very largely attributable to war, the discussion may be confined to the economic effects of war debts.

Increase in costs. One very obvious result of war financing through loans rather than taxes is an increase in money costs. Borrowing as a substitute for taxation increases the cost to the government, for the loans must ultimately be repaid with interest. When the proceeds of public loans are invested in "public works", this is not usually a source of worry, because there is presumably an offsetting steady stream of income. But when the proceeds of public loans have been literally blown up in devastating war, the payment

of both principal and interest must come out of the pockets of the people who are taxed. The loans are not self-liquidating. European nations borrowed approximately eleven billions of dollars from the United States during the period of the war. If these debts are paid, even at the low interest rates stipulated in the funding agreements, ranging from an average rate of 0.4 per cent in the case of Italy to 3.3 per cent for Great Britain, our debtor nations will pay back over a period of sixty-two years a total of approximately twenty-two billions of dollars. The extra sum of eleven billions represents interest and is an additional money cost of the war.

Inflation of prices. Extensive borrowing makes likely, if not inevitable, the inflation of prices. When a man pays taxes, he transfers some of his purchasing power to the government and only the government can use the purchasing power so conveyed. When a man buys bonds he also transfers purchasing power to the government, but while the government can use all of the purchasing power so transferred, the holder of the government bond can use some of it as well. He can, if he chooses, offer the bond as collateral for a bank loan and, with the deposit credit thus obtained, engage in any market transactions he pleases. It is a case of lending one's purchasing power and of having it, too—or at least such part of it as the banks are willing to restore to the individual bondholder against the security of his government bond. The net result of this double transaction, when multiplied by the number of times it occurs, is such an increase in manufactured purchasing power, based upon the extension of bank credit, as to raise the general level of prices.

In actual practice, moreover, the buyers of government bonds, particularly when the bonds are offered in large quantity, do not as a rule buy them with accumulated savings which need only to be transferred to the government. Instead they borrow the needed purchasing power from the banks in the first place, and the banks accept the government bonds as security for the eventual repayment of the purchase money.

The government, too, may borrow from the banks directly. In place of selling bonds to its citizens, who pay for them either with current savings or with bank loans themselves to be repaid with future savings, the government may follow the line of least re-

sistance and go to the banks at once. Indeed, this is the usual procedure at the outbreak of war. War, like death in the case of an individual, rarely finds a nation ready—at least financially ready. Emergency financing becomes necessary. The almost invariable procedure is for the government to offer its treasury bills or certificates of indebtedness (which are interest-bearing short-term notes) to the banks for discount, and to receive in exchange deposit credit or bank-notes which have the circulation privilege.

No matter how the government borrowing is done, whether from individuals or from banks, the result is the same: an inflation of prices inevitably occurs. The recurrent expansion of bank credit just as surely leads to the inflation of prices as does the forced injection into the circulation of government paper money. With the resulting rise in prices everything that the government must buy in the prosecution of war costs more, just as all private consumers find their bills higher. And the worst of it all is that the process of inflation soon gets out of hand. Inflation results in higher prices and higher prices lead to further inflation. When a nation once begins skidding on the treacherous highway of inflation it is almost impossible to apply the brakes without precipitating a wreck, and yet at the turn of the road a still greater crash awaits. With great increases in the volume of bank-notes, of bank credit established through borrowing rather than the deposit of savings, and ultimately of government notes which are made legal tender, the suspension of specie payments is inevitable. Inflation then breaks loose from all restraining influences, and a financial catastrophe confronts both the government and private business.

The shifting or reapportionment of war burdens. It is generally supposed that one important effect of financing a war through bonds rather than through taxes is the shifting of a large part of the cost of the war to future generations. To what extent, if any, is such shifting possible? The answer to this question turns on the distinction between physical and the money cost of war. The physical cost of every war must be met by the generation that carries on the war. It cannot be shifted. A war is fought by the men of any generation who are able to bear arms, not by the unborn of future generations. It is fought with munitions and supplies already in existence or

that are produced as they are needed. It is in this physical sense that every generation must pay the total cost of its own wars—that every war is fully paid for when it is over. But this is not equally true of the money cost of war. If a war is predominantly financed through the issue of bonds, the accumulated savings and credit of some of the people are used at once, but the payment of the money cost of the war by the people as a whole is deferred until such time in the future as the bonds are retired through the collection of taxes. The money cost of every war is borne whenever taxes are raised either to meet its direct outlays or to retire the bonds with which the war was temporarily financed. If all of the taxpayers of a country are also bondholders, their payments are like transferring money from one pocket to another. They pay out as taxpayers and take in as bondholders. There the analogy stops, however. It does not follow that the amount of taxes paid in any individual case equals what is received in the payment of principal and interest on the bonds. Taxation effects a reapportionment of the money burden of the war. It repays the bondholder for funds supplied during the war with funds collected from all the taxpayers both during and after the war. It is of course true that the people as a whole are neither richer nor poorer than they were before the payment of the bonds. What the taxpayers have lost the bondholders have gained. But the essential point to keep in mind with reference to war bonds and war taxes is this: bonds are a device for obtaining immediate funds; taxes are a means of distributing among the individuals and groups composing a people the money cost of the war in accordance with whatever principles of taxation are embodied in the fiscal system of a country. Taxes reapportion the money burden of the war over whatever period of time is taken to retire the public debt created by war.

MEANS OF PAYING PUBLIC DEBTS

Public debts must be paid out of the revenues of government. If the debt has been incurred for a capital investment, the earnings from capital will help amortize the debt. But if the debt has been incurred to meet current deficits, ordinary or extraordinary, it must

ultimately be paid out of taxes and other governmental revenues.

The payment of domestic debts. The payment of domestic debts presents an easier problem than the payment of foreign debts. If the debt be self-liquidating, it represents no drain upon the taxpayer. If the debt must be met out of taxes, at most it means the collection of taxes from all those liable for such payments in order to pay to some citizens the money that was borrowed from them. The payment of domestic debts effects a redistribution of income within a country. Provision for the payment of domestic debts is usually made either through the establishment of sinking funds or the issue of serial bonds. A sinking fund is a money fund into which stipulated revenues are paid by the government each year for the purpose of retiring or "sinking" the debt when it matures. It is the method adopted by Congress for the retirement of our war debt. In this case it has proved entirely satisfactory. Our gross national debt reached its war-time peak during the fiscal year 1919, when it stood at \$25,482,034,000. In the ensuing eleven years it was reduced by \$9,296,726,000, bringing it down to \$16,185,308,000 on June 30, 1930, after which it rose again on account of the large sums spent by the federal government for relief and recovery during the depression of the thirties. It should be noted, however, that this amazing reduction in about the first decade after the war, when governmental expenses continued high, was possible only because the normal sinking fund receipts were augmented from other sources. During these eleven years \$1,488,720,450 of the amounts paid us by our foreign debtors in principal and interest were used in retiring our public debt. Surpluses in the treasury, due to an annual excess of receipts over expenditures, fortunately were also large, and these were applied to the retirement of the debt. Sinking funds are effective means of retiring indebtedness provided the necessary liquidating funds are regularly collected. There is always the temptation to neglect this indispensable matter, however, in order temporarily to lighten the tax burden.

A more effective way to retire debts is through the issue of serial bonds. Under this plan the maturities of the bonds issued are arranged in a time series, a portion of the total issue being retired each year. If twenty-year serial bonds are issued, the entire debt is

extinguished in twenty years by paying a designated amount, perhaps one twentieth, each year. This method of paying a debt has the undoubted advantage of compelling the government to begin raising revenue at once to meet the necessary redemption requirements. It avoids the risk of failure to provide an adequate sinking fund or of tampering with it if it actually is in process of accumulation. Serial bonds have become the favorite means of arranging for the settlement of the debts of local governmental units. They are the best possible device for settling debts incurred for public works, since there is no reason why the government cannot at once prepare for the gradual amortization of the debt. They are not well adapted, however, to the extinction of war debts created under the stress of an emergency; consequently our federal government has made no use of serial bond issues in connection with our national debt.

The payment of foreign debts. The payment of foreign debts is somewhat more difficult than the payment of domestic debts because it involves the actual transfer of commodities or services from the debtor country to other countries of the world. In meeting its foreign obligations a debtor country must first of all tax its citizens sufficiently to secure revenues in excess of its normal domestic expenditures by an amount equal to the payments to be made abroad. This in itself is a huge task, if the foreign debts be large, and may necessitate the curtailment of the expenses of the debtor government in addition to taxes so drastic as to reduce the standard of living of the people. But even after the taxes are collected, the task of the debtor government is usually not over. The pounds sterling or francs collected, for example, must be converted into American dollars if Great Britain and France are to pay their debts to the United States. How can this be done? By the governmental purchase of dollar exchange, which represents purchasing power in the United States. Normally, dollar exchange becomes available when Americans have bought commodities and services from the rest of the world. The goods, "visible or invisible", bought by Americans represent purchasing power in the United States to the sellers. These goods create the dollar exchange which any foreign debtor, private or public, must buy in order to discharge an obligation in or to the United States. In the long run the only effective way in which a

nation can pay its foreign debts is, directly or indirectly, to build up an export balance over imports with the rest of the world. Such export balance is realized when the total value of the commodities exported plus services performed, such as carrying freight and passengers across the seas, insuring risks, and feeding, housing, and entertaining the citizens of other countries, is in excess of the value of the commodities and services imported. Conversely, the creditor nation must in the long run be willing to accept an excess of imports of commodities and services over exports. It does not follow that any particular debtor nation must create such an export balance in its trade with any particular creditor—France with the United States, for example. It does follow, however, that the debtor nation must achieve such an export balance in the totality of its world trade if it is to make any progress in the liquidation of its debt.

THE PAYMENT OR REPUDIATION OF PUBLIC DEBTS

Because of the difficulty of securing and transferring the means of payment, public bonds are not always collectible by their owners. While it is both good morals and good business for a government to pay its debts, repudiation has not been uncommon.

The payment of public debts. What security does a government offer the purchasers of its bonds? Usually none, other than its written word. If the finances of a government are notoriously weak and its need for a foreign loan is desperate, public property may be offered as security. In extreme cases the foreign creditor may take charge of the customs administration of the debtor country in order to guarantee payment of interest and principal of the loan. Salvador refunded its national debt in 1923 by selling \$18,500,000 of its bonds in the United States on the security of 70 per cent of its customs receipts. Bolivia pledged its entire customs receipts to New York bankers to secure a loan of about \$29,000,000 in 1922. China has for years submitted to an international customs control to satisfy her creditors. Such cases are decidedly exceptional, however. What assurance does the holder of a public bond have that the government will redeem its promise to pay? Unless specific security has been given, which is rare, his main reliance must be upon the

desire of every government to maintain its credit standing. Failure to do so at any given time may be fraught with peril for the future; it may mean the inability of the government to borrow in the open market on some future occasion when war or some other emergency makes borrowing imperative. Consequently most governments are meticulously scrupulous in meeting their obligations, and as a result government bonds are given premier standing in the securities markets of the world.

The repudiation of public debts. There are all too many instances, however, of the repudiation of public debts. Repudiation has often accompanied a change in government; the new régime has repudiated the obligations of the old. The Russian Soviet government, for example, which has now been in power for more than a decade and a half, has failed to assume the public debt obligations of the Czarist régime. If the government of a sovereign state defaults in the payment of principal and interest on its bonded indebtedness, the bondholder has no redress except to bring suit in the courts of the country. This is a remedy of no very great importance, if the debtor government chooses not to meet its obligations. What is more, a sovereign state cannot be sued by an individual without its consent. What the individual bondholder may do is to seek the aid of his own government in bringing political pressure to bear upon the defaulting government through regular diplomatic channels. War has sometimes been threatened in order to force the payment of debts. In the case of minor political units, such as counties and cities, failure to pay debts may result in orders from the courts of the State requiring the officers of the local governmental unit to include the amount of its indebtedness in its tax levy. To reduce the probability of such contingencies, laws have been enacted limiting the amount of the indebtedness of local units of government to a small percentage of the appraised value of the taxable property.

Repudiation may be indirect as well as direct; the effect upon the bondholder is the same, though the form of the repudiation act differs. Unless it is expressly stipulated that public debts are payable in gold, it is implied that they may be paid in the currency of the country. If this currency has greater purchasing power at the time of the payment of the loan than it had when the loan was first made,

the debtor government is the loser. But if the currency has declined in purchasing power, the debtor government finds it easier to pay its obligations, and it gains correspondingly. If a government inflates its currency so that the purchasing power of any unit of it depreciates to almost nothing, all debts, public and private, can be paid off with negligible effort. This is what happened in Germany and Russia, for example. German pre-war debts, contracted when the mark was measured by about twenty-four cents in gold, were paid off in worthless paper marks. The number of marks paid was the number "nominated in the bond", but it took millions, billions, and even a trillion of paper marks to equal in value one pre-war gold mark. Repudiation of debts need not be formal and direct. The same effect can be accomplished through inflation of the currency. By means of it the debtor nominally pays his obligations, but in reality he repudiates them.

The cancellation of public debts. One aspect of the question of the settlement of public debts that has aroused widespread interest is the proposed cancellation of certain international debts growing out of the World War, notably the inter-Allied debts. Great Britain and the United States are the principal creditor nations, though France lent heavily to Belgium and Russia. Great Britain and the United States each lent in excess of eleven billions of dollars; Great Britain herself, however, borrowed nearly six and one-half billions, of which about two thirds came from the United States.¹³ If the proposed cancellation were made, European debtor nations, directly at least, would gain at the expense of the United States, which functioned as the chief financier of the war after our entrance in 1917. As far as debts to the United States are concerned, all have been funded with payments spread over a period of sixty-two years.¹⁴ The funding of the obligations to the United States, however, has not closed

¹³ H. E. Fisk, *The Inter-Ally Debts* (New York: Bankers Trust Company, 1924), pp. 348-349.

¹⁴ For details concerning the present status of these debts, cf. *Combined Annual Reports of the World War Foreign Debt Commission of the United States* (1927). Of our leading debtors Great Britain agrees to pay annually from a minimum of 160 millions of dollars to a maximum of 180 millions; France begins with thirty millions of dollars per year and pays a maximum of 125 millions; Italy starts with five millions of dollars per year and eventually is to pay a maximum of fifty millions.

the discussion concerning the wisdom or folly of cancellation. Great Britain, in a celebrated note written by Lord Balfour in 1922, offered to cancel the whole of the obligations of her allies to herself, and also to forego her claims upon German reparations, if the United States would cancel the British debt to us. While this looks somewhat like asking the United States to join in an act of international debt forgiveness by canceling a collectible debt in consideration of British cancellation of debts the collection of which is rather dubious, it is true that it means the wiping out of British book accounts more than twice as large as the American.

It is admitted on all sides that the loans of the United States to the Allies are valid contractual obligations. The Allies asked for the loans, and the United States made them in good faith. To the ordinary layman, not versed in the intricacies of public finance, these public debts look like any other money obligation—debts that were fairly incurred and that ought in honor, and for the safeguarding of future national credit, to be repaid. There is no question that the debts are fully recognized as legal obligations; the funding agreements that have been negotiated and accepted give ample evidence of this.

But in spite of the admitted legality of the debts, there is an urgent cancellation movement not only in the debtor countries but in the United States as well. Much of the popular support of this movement is based on ethical rather than on economic considerations. It is argued that the debts to the United States should be canceled, or at least very much reduced, because they represent advances made to our comrades in arms, who were fighting for us as well as for themselves. For at least fifteen months after our entrance into the war, we were not ready to render any substantial fighting assistance. During this period our contribution to the winning of the war, in which we had made common cause, was largely financial. We sent materials and munitions long before we were able to send men. We charged our allies for them, however, even though throughout the heavy fighting of this period hundreds of thousands of their soldiers were making the supreme sacrifice—for us as well as for their own countries. If our allies had not been able successfully to hold the battle front through all those weary months of 1917 and

1918, the burden upon us in both lives lost and money spent would have been vastly greater. We should then ultimately have been forced to fight alone. Victory would have been immeasurably more costly than it actually proved; defeat would have been crushing. Is not the least we can do under these circumstances to cancel the debt that was incurred for procuring materials from this country in order to help win the war the more quickly? Should not these debts in all fairness be looked upon as contributions rather than as loans? Would not Congress have voted these credits just as willingly as gifts rather than as loans, if our allies had asked that this be done at the time? So runs the argument for cancellation on moral grounds. It is a powerful argument, if one grants the premise that the United States and the Allies had a "common cause" in the war from the beginning, which the United States was merely tardy in assuming.

Those who deny the validity of the moral argument for cancellation decline to accept the premise upon which it is based. They say that there was no real "common cause"; there was common hope for victory on the part of the Allies and the United States, but the causes leading to participation in the war were various. Opponents of cancellation look upon the war as essentially not only of European origin but also of European interest. They regard the American loans as most timely and of extraordinary value to the Allies, who, they believe, would have been just as eager to get the loans in order to defeat their enemies if the United States had never entered the war at all. They say that when the debts were incurred there was no suggestion on the part of the Allies that the sums advanced were to be considered as gifts camouflaged as loans, for our debtors had visions of exacting reparations that would solve the problem of repayment. Time has proved their hopes of recouping not very well founded; the movement for cancellation is a direct consequence of their shattered hopes. So runs the argument against cancellation on moral grounds. It is evident that the argument has reached an *impasse* as long as it rests solely on ethical grounds. Failure to accept common premises not unnaturally leads to different conclusions.

But there are economic considerations involved in the cancellation of the debts which will doubtless prove more decisive. They

pertain to the debtor countries' ability to pay and to our own real willingness to receive. We have already recognized the inability of our debtors to pay both principal and interest in full on the original demand note agreements, which called for the payment of interest at $4\frac{1}{4}$ per cent, the same rate as that of our own Liberty bonds, the last of which were refunded in October, 1935. The funding agreements that have been made, which spread payments of principal and interest over a period of sixty-two years, allow a material reduction. It is true that our debtors will pay us approximately twenty-two billions of dollars, twice the amount of the principal, if the funding agreements are carried out. But even so, in the case of our principal debtors the agreements represent an average rate not of $4\frac{1}{4}$ per cent, which the United States paid until its refunding operations were complete, but only 3.3 per cent in the case of Great Britain, 1.6 per cent for France, and 0.4 per cent for Italy. On the basis of $4\frac{1}{4}$ per cent interest, these agreements cancel 17 per cent of the British debt, 52 per cent of the French, and 75 per cent of the Italian. Some of this reduction is fully justified by the fall in prices that has occurred since the debts were first contracted. Notwithstanding the scaling-down of the debts that has already occurred, it is exceedingly doubtful that our debtors will be able to make their payments without such lowering of their own standards of living and such shifting in foreign trade as to make further reduction in the debts the more acceptable policy even to us. And should the catastrophe of another war befall any of our debtors, which it must be admitted is not at all impossible, their capacity to pay might readily shrink to negligible proportions.

If it be granted that through severe taxation and a stupendous increase in their export trade, our debtors would be able to repay us (and it seems possible), the question still remains: Would we be willing to receive? This may seem a superfluous question to raise in view of our well-known insistence upon payment of the debts. And yet our willingness to receive is almost as debatable as our debtors' ability to pay. International debts running into billions of dollars cannot be paid in gold. If our debtors were to ship us all the gold they have, they could not pay one half the principal sum they owe us, not to mention interest, and by doing so they would

ruin their own financial systems. And that would prove disastrous not only to them, but also to our own future trade with them. There is only one effective way in which we can receive payments on the debts: that is if our debtors, directly or indirectly, sell us more commodities and services than we sell them. They must be able to build up a huge surplus of exports over imports, including commodities and services. We must be willing to accept a corresponding excess of imports over exports. Temporarily, a debtor nation may delay the application of this principle by securing new foreign loans. In the years prior to the moratorium of 1931, our debtor nations paid us approximately \$2,627,580,000 in principal and interest on their indebtedness to the United States government. During about the same period foreign securities were bought by private American investors to the amount of over \$10,000,000,000. As long as any debtor nation, through private or public borrowing, can secure a fresh extension of credit, it need have no worry concerning how it will secure the foreign exchange with which to discharge its obligations. It is even conceivable that it may liquidate its public indebtedness entirely in this way; but in doing so it has merely shifted its creditors. Private individuals or banks have taken the creditor position of the foreign government. Payments based upon new loans do not really represent liquidation of debts at all. They merely transfer the creditor and postpone the day of reckoning. Ultimately, too, these private obligations must be met through a balance of exports, and the creditor nation must be willing to receive.

So-called "triangular trade" may obscure but does not deny the basic principle of surplus exports as the only effective means of paying international debts. France, for instance, may obtain dollar exchange with which to make payments on her obligations to the United States by selling manufactured goods to Brazil, who, in turn, may sell coffee to the United States. The coffee transaction creates the dollar exchange with which Brazil may pay France and which France can use in making a payment on her indebtedness to the United States. If trade is arranged in this way, however, the United States loses a corresponding opportunity to send exports to Brazil in exchange for the coffee.

To receive a surplus of twenty-two billions of dollars' worth of

commodities and services on governmental account, in addition to a still larger surplus representing payments of foreign debtors to private American investors, may well put such a strain upon our future capacity to receive as to cause it to break down. It may effect a partial paralysis of our export trade, with a resulting industrial depression in this country. Indeed, it may fairly be argued that payments on account of these debts have already proved a millstone around the neck of our export trade.

The United States still exports more commodities than it imports. For the period 1920-1934 the average annual excess of American exports of merchandise over imports was 848 millions of dollars. Every year since 1893 has also shown a substantial surplus. As long as the United States was a debtor country, these surplus exports served to pay interest on foreign holdings of American capital. But now that the United States is so predominantly a creditor nation, they call for payment. If they are not offset by new advances of capital to European borrowers, which create the dollar exchange with which they may temporarily be paid for, they must be covered by the "invisible items" in the balance of accounts of the rest of the world with us. The payment of debts, it must be remembered, differs from ordinary trade in this respect: it calls for no offsetting movement of exports at the time of debt repayment, because the compensating exports were made when the debt was first incurred. The natural thing for a creditor nation to do is to increase its imports of merchandise sufficiently to permit the gradual liquidation of the debt. But in the case of the United States this would most certainly mean a revision of our traditional protective tariff policy in the direction of materially lower duties. If a creditor nation is unwilling to increase its imports, the debtor nations may be forced to decrease their own imports from the creditor nation in order to develop the exportable surplus with which to pay their debts. This may seriously affect the foreign export business of the creditor nation and consequently is not welcomed.

Much confidence is being placed in the so-called "invisible items" of the international balance of accounts—principally the rendition of such services to the creditor nation as providing for the comfort of its tourists, transporting its freight and passengers, and insuring

a variety of its risks. Such services do indeed play a large part in international accounting. It is doubtless true that the easiest and simplest way for us to collect our debts would be further to stimulate American travel and expenditures abroad. Prior to the World War, it is estimated that American tourists and residents abroad spent from 100 to 200 millions of dollars annually; in 1927, it is similarly estimated that they spent 770 millions of dollars. This increase occasioned Mr. Hoover's remark with reference to the Allied debts to the United States: "The fact is the increase in our tourist expenditures alone in Europe since the war would enable them to take care of the entire amount of their annual payments."¹⁵ But this statement ignores an equally important fact, namely, that there has been an enormous increase in the returns that are annually due on American private capital invested abroad. While prior to the War less than 100 millions of dollars sufficed for this purpose, in 1929 it took almost a billion dollars to meet the claims of private American investors against the rest of the world. The service payments in the international balance of accounts are most important items, but they are at present not equal to the task of offsetting both the private and the public claims of the United States against European countries. The payment of an average of 320 millions of dollars, which is the amount due us annually for a period of sixty-two years¹⁶ in liquidation of the Allied debts, simply puts so much additional burden upon the "invisible" items in the international balance of accounts. If the "invisible" items are used to pay the debts, they cannot at the same time and to the amount of 320 millions of dollars be used in paying for exports from the United States. What a great creditor nation should be willing to do is to accept an excess of imports of merchandise over its own exports. There seems no present disposition in the United States, however, to reverse our traditional export policy. On the contrary every important business is striving to widen its markets. We enjoy the status of a creditor nation, but we cling to the psychology and economics of a debtor nation. As a nation we are like an individual, who has reached a

¹⁵ As reported from a public address in Boston, October 15, 1928.

¹⁶ The funding agreements were signed as follows: Great Britain, June 18, 1923; Belgium, August 18, 1925; Italy, November 14, 1925; France, April 29, 1926.

state of affluence that would permit him to enjoy returns from his investments, but whose old habits of trade are so deeply rooted as to make a change almost impossible. Faced with the economic realities of what it means to collect our debts, we may yet conclude that it is better to give than to receive, better to forgive our debtors than to hold them to strict account.

The payment of German reparations. The payment of German reparations, like the payment of the inter-Allied debts, has been and will be possible only to the extent that Germany can develop surplus exports of commodities and services in its trade with the rest of the world. This principle of surplus exports, "visible and invisible", is a reciprocally acting principle; it implies ability to pay on the part of the debtor nation and equal willingness to receive on the part of the creditor nation. Four international attempts have so far been made to define either the amount of German reparations or the ways and means of paying them. The Reparations Commission on April 27, 1921, originally fixed the total of the reparations to be paid by Germany at 132,000,000,000 gold marks—approximately \$33,000,000,000. Under a subsequent agreement negotiated at Spa, the principal beneficiaries of German reparations were France, which was to receive 54 per cent; the British Empire, 23 per cent; Italy, 10 per cent; Yugoslavia, 5 per cent; and Belgium, 4.5 per cent. These percentages were changed at the Paris conference of 1929, when the total payments to be made by Germany were materially reduced. To provide for the payment of \$33,000,000,000 would have meant an annual tax levy upon the German people of one and a half to two billions of dollars, depending upon the rate of interest charged and the rapidity of payment of the principal. Time and again Germany defaulted in the payment of reparations. Since grave doubts had arisen as to both Germany's capacity to pay and the willingness of the world to absorb any amount of German goods, the Reparations Commission finally appointed a committee of experts to study the whole vexed question of Germany's capacity to pay and of the transfer of payments to the Allies. The so-called Dawes Report, adopted in 1924, was the outcome of these deliberations. It should be noted, however, that the Dawes Committee had no authority to revise the total of reparations downward.

All that this committee of experts could do was to ascertain Germany's reasonable capacity to pay and to designate the sources from which the money could be raised.

As far as reparations were concerned, the most notable feature of the Dawes Plan was the sharp distinction that it drew between the problem of paying reparations and the problem of receiving reparations. The former was held to be Germany's problem; the latter was regarded as the problem of the creditor governments. As to the first, the Dawes Committee reached the conclusion that Germany would be able to pay 1,000,000,000 gold marks in the first year of operation under the plan and to increase her ability to pay to 2,500,000,000 gold marks by the fifth year, 1928-1929, which sum was set as the standard annual payment. Germany promptly and fully met all the payments required under the Dawes Plan, depositing them in the designated German bank to the credit of the foreign Agent General for Reparation Payments, who represented the creditor governments. These payments, as proposed in the plan, were to be derived from four sources: (1) the ordinary German budget, which was counted on to supply 1,250,000,000 marks, one half of the payments of the standard year; (2) the German railways, which had to issue eleven billions of gold marks of 5 per cent first mortgage bonds, which, with 1 per cent for sinking fund charges, yielded 660,000,000 marks annually for reparations; (3) a tax on the gross receipts from railway traffic, of which reparations annually preempted 290,000,000 marks; and (4) German industry, which like the railways also had to issue bonds in favor of the Reparations Commission, in this case amounting to five billions of gold marks and yielding for annual interest and amortization 300,000,000 gold marks.

After the German people had directly and indirectly taxed themselves 2,500,000,000 gold marks annually for the reparations account, their responsibility in the matter ended. It was the duty of their creditors, the Allied governments, to convert the German marks into the desired foreign currencies. Obviously, this could not be done by shipping gold out of Germany, for what gold Germany had was needed to stabilize the German currency. The only effective way in which it could be done was through the purchase by for-

eign countries of German commodities and services. The purchase of German goods created a demand for German marks with which to pay for them. These could be bought in exchange for dollars, pounds, francs, or other foreign currencies from the Agent General for Reparation Payments, to whose credit Germany deposited her annual reparation payments in marks. In this way he obtained the foreign currencies with which to meet the claims of the Allies for reparations.

As a matter of fact, however, during the five years following the adoption of the Dawes Plan foreign exchange was plentiful in Germany. So successful were the Germans in borrowing abroad, principally in the United States, that there was not only an abundance of foreign exchange with which to make reparation payments to foreign governments, but also enough to cover Germany's substantial excess of imports over exports during this period. Germany paid reparations to her public creditors very largely by contracting for new loans from private creditors. During the five years of operation of the Dawes Plan Germany paid her governmental creditors about \$1,793,000,000, but during the same period she borrowed new capital from foreign private creditors amounting to more than \$4,000,000,000. The extinction of one debt through the creation of a new one was no real liquidation. It was merely putting off the day of final settlement. What was demonstrated under the Dawes Plan was not Germany's ability to pay, but rather her improved ability to borrow.

The Dawes Plan was supposed to represent a business solution of a vexatious problem. But, unfortunately, the business experts responsible for its formulation had no authority to reopen the question of the amount of reparations as fixed by the Reparations Commission in 1921, in spite of the fact that it was perfectly apparent that no such sum as \$33,000,000,000 could either be paid by Germany or transferred to her creditors. Consequently, the Dawes Committee had to restrict itself to fixing the annual payments which Germany could reasonably be expected to make and her creditors to receive. It could say nothing about the number of years that the instalment payments had to run. Germany was a nation in receivership the termination of which was so remote and indefinite as to

discourage the normal economic activities of the people. Under such conditions a reconsideration of the whole reparations question was inevitable.

The third international attempt to settle the moot question of what Germany could afford to pay as reparations came in the spring of 1929 at a conference of the interested nations held in Paris. The so-called Young Plan was the result of these negotiations; it superseded the Dawes Plan on September 1, 1929. The Young Plan reduced the annuities to be paid by Germany approximately 20 per cent and set March 31, 1988, as the date of final payment. For the first thirty-seven years the annuities to be paid by Germany were to average 2,050,600,000 gold marks, as compared with the standard payment of 2,500,000,000 gold marks under the Dawes Plan. Beginning with an initial payment of 1,707,900,000 marks, which was about one-third less than the last and standard year payment under the Dawes Plan, the annuities of the Young Plan were to rise slowly to a maximum of 2,428,800,000 marks, which was still under the Dawes Plan standard payment. After the first thirty-seven years the annuities were to diminish, and they were to stop entirely in 1988 after fifty-nine years of payments. Each annuity was to consist of two parts: an "unconditional and non-postponable" payment of about 660,000,000 marks, and the remainder the payment of which might be postponed for two years if economic conditions, such as the falling-off of German exports, necessitated. The non-postponable annuities were to be raised by a direct tax on German railways and were to cease after thirty-seven years. It was hoped that they might be "commercialized", that is, that bonds might be issued against them and sold to the investing public. The present capital value of these annuities spread over a period of fifty-nine years is approximately 36,000,000,000 gold marks or about \$9,000,000,000.

Although the United States Government has consistently refused to recognize any necessary connection between the payment of German reparations and the payment of debts to the United States by the Allies, it is interesting to note that the two classes of payments run for the same time, that the amount of the postponable annuities roughly equals what the Allies are expected to pay us, and that

Germany will be the chief beneficiary of any reduction made by the United States.

The Young Plan contemplated the delivery by Germany to her creditors of capital obligations approximating \$9,000,000,000. It was apparent that to discharge any such capital obligation with interest, even over a long period of years, would involve vast and steady exportation of German goods, and the purchase of foreign exchange by the German government with which to pay its creditors. To guard against demoralization of the exchanges and possible preferential treatment among creditors in the event of default, a new central agency was created for the receipt and transfer of the German annuities. This is the Bank for International Settlements, now established at Basle, Switzerland. This unique financial institution has authorized capital stock of \$100,000,000, subscribed in the main by banks and private citizens of the nations represented on the Young Committee—Belgium, France, Germany, Great Britain, Italy, Japan, and the United States. Stock ownership, however, does not give control, for it is expressly stipulated in the agreement that control and direction of the bank shall reside with the central banks, or in lieu thereof, with acceptable private banks of the seven countries named. Japan and the United States, for reasons peculiar to these countries, are represented on the directorate by private banks. The bank is not a super-central bank. Its primary purpose is to receive and transfer in an orderly way the reparation payments made by Germany. But it is more than such a receiving and distributing agency. It may receive other deposits, deal in gold coin and bullion, buy and sell exchange, and lend to and borrow from central banks. But it may not lend to governments or conduct ordinary deposit accounts for governments, accept bills of exchange, acquire control of any business, or issue its own bank-notes. Most important of all, to make sure that it will not encroach upon the activities of existing institutions, it cannot do business in the markets of any country, if the central bank of such country objects. The Young Committee counted on the success of the bank. Indeed, it was hoped that Germany, by making a long-term deposit in the bank of no less than 400,000,000 gold marks, would be able to pay the annuities of the last twenty-two

years from the earnings of the Bank for International Settlements.

The Young Plan, put into operation September 1, 1929, was soon overwhelmed by the world-wide economic depression. Rapidly falling prices made it increasingly difficult for debtor governments, no less than private debtors, to meet their obligations. It became increasingly clear to all that the whole structure of the inter-Allied debts rested upon the ability and willingness of Germany to pay reparations. Consequently, the financial distress of Germany, occasioned by the drop in commodity prices which made it harder to pay, the calling of short-term credits previously extended to Germany by foreigners, and the flight of some capital from Germany prompted by fear of economic and political instability, unsettled the whole world. Germany had paid about \$684,000,000 under the provisions of the Young Plan when it became evident that only an international public debt holiday could prevent a complete financial collapse. The proposal of President Hoover, as spokesman of the world's ultimate creditor nation, to postpone for one year all payments upon the intergovernmental war debts was quickly and enthusiastically accepted by the nations of Europe. The moratorium became effective July 1, 1931. Since economic conditions grew worse rather than better during the ensuing year of grace—prices falling still lower and foreign trade shrinking—it became imperative once more to reopen the ten-year-old controversy over German reparations.

This fourth attempt to reach a "final" solution of the problem of German reparations was made at a conference convening in June, 1932, at Lausanne, Switzerland. The agreement reached revealed a surprising change of front on the part of the creditor nations, even if perhaps this was more apparent than real. The interested powers agreed with Germany to substitute for the annuities of the Young Plan a final payment by Germany of three billions of gold marks. This final lump settlement is in striking contrast to the thirty-six billions of marks representing the present worth in 1929 of the Young Plan annuities, and to the 132 billions of marks first assessed by the Reparations Commission in 1921. The disparity of course is less than it seems by the amount of the payments made by Germany in the interim. Under the Lausanne agreement the German govern-

ment is expected to deliver its own 5 per cent bonds, amounting to three billions of marks, to the Bank for International Settlements as trustee. After a three-year period, which is equivalent to a new reparations moratorium, the bank is authorized to sell them in the investment market, provided no bonds are issued for less than 90 per cent of par. If any bonds remain unissued fifteen years after the date of signature of the agreement, they are to be canceled. This last settlement of the reparations question becomes effective when ratified by the governments of Belgium, France, Germany, Great Britain, Italy, and Japan. It has not yet (1935) been ratified by all of them. Refusal to ratify by any one of them may undo the work of the Lausanne Conference. Whether ratification of any of the signatory powers will depend upon possible concessions that can be obtained from the United States in the revision of their war debt obligations is still one of the tantalizing issues of the future. But whatever the outcome of future negotiations with the United States may be, it seems reasonably certain that as far as Europe is concerned German reparations are now a dead issue, or at least a closed question. The Lausanne agreement appeals to the common sense of the world. It removes the dark clouds of financial uncertainty which have been hanging over Europe since the War and makes possible the growth of new understandings concerning tariffs and trade which should accelerate the economic recovery of the world. The whole troublesome history of German reparations again confirms the conclusion that a world war neither pays the victors nor can it be made to pay for itself.

PART VI
ECONOMIC POLICIES AND POLITICS

CHAPTER XXXI

THE ECONOMIC POLICIES OF GOVERNMENT

CHANGING ECONOMIC POLICIES OF GOVERNMENT

Government has for centuries actively participated in our economic life, sometimes more and sometimes less. For 300 years, namely, throughout the sixteenth, seventeenth, and eighteenth centuries, the prevailing economic policies of European governments were highly restrictive. The mercantilistic policies of this period, as they came to be known, were primarily designed to promote the interests of the state in its trade relations. To that end all other economic interests were subordinated. General acceptance of the view that it was altogether desirable for government to regulate the economic life of the people persisted far into the eighteenth century. But contemporaneously with the technological changes of the industrial revolution in the eighteenth century there came also a marked change in the world of economic and political ideas. A conception of the economic functions of government radically different from that of mercantilism arose and a new policy was developed. This was the policy of *laissez faire*, the policy of non-interference by government in economic life. According to *laissez faire* conceptions, government was expected to confine itself exclusively to political functions, allowing men very largely to do as they pleased economically. In striking contrast to the restrictive policies of mercantilism, *laissez faire* aimed at exemption from restriction. In the main, this policy dominated the economic thinking of Europe and the United States for 150 years. During the past fifty years, or thereabouts, a third economic policy of government has developed, gradually supplanting the *laissez faire* policy in some parts of the economic field. This is the present policy of government control, carried out for the purpose of regulating competition and protecting the interests of the public. An understanding of the significance of

these economic policies of government—mercantilism, *laissez faire*, and regulation—is helpful in determining what at any given time the policy of government toward our economic life ought to be.

IMPORTANT MERCANTILISTIC DOCTRINES

Mercantilism may be described as a group of governmental regulations of commerce and industry designed to procure for the country in its trade with other countries a profit in the form of the precious metals. Cromwell in England, Colbert in France, and Frederick II in Prussia were leading political exponents of mercantilism.

Emphasis upon nationalism. What were the leading doctrines and policies of mercantilism? The central idea in mercantilism was nationalism. Statesmen of the mercantilistic period thought of the nation as the great entrepreneur and championed policies that were designed to strengthen the nation, even if this had to be done at the expense of individuals. The interests of the nation as a whole were considered superior to the interests of the individuals composing the whole. The Navigation Acts of England, for instance, prohibited foreign ships from carrying goods to England from America, Asia, and Africa. It was admitted, of course, that such a prohibition might work to the economic disadvantage of the English merchant or consumer, but this was considered unimportant. The economic gain or loss of an individual was negligible when compared with the interests of the nation as a whole. It is hard for us to understand the purpose of the complex regulations of mercantilism. Trade today is comparatively free. Government in the mercantilistic era, however, was deeply concerned with what merchants bought or sold, whether they exported raw materials or finished goods, whether they employed home or foreign ships, and whether they paid for their purchases in other goods or in gold and silver. The government held that some trade was good and other trade was bad, the test being whether any particular kind of trade tended to strengthen the nation as a whole through the accumulation of wealth within it.

Importance of the precious metals. The clue to an understanding of mercantilism is to be found in the importance attached to the

possession of the precious metals. In the furtherance of national interests gold and silver were considered a most desirable form of wealth. The mercantilistic emphasis upon a nation's possession of the precious metals was a natural result of conditions prevailing at the time; more than most other forms of wealth, gold and silver were durable, were readily and generally exchangeable, and imparted financial strength to the nation having them in the ever present contingency of war.

Encouragement of foreign trade. How was a nation to obtain gold and silver? Some nations, notably Spain, had been fortunate in the discovery and development of mines of the precious metals. But this was a rather uncertain source. Much more constant, according to mercantilistic statesmen, was the treasure that might be obtained through foreign trade. Accordingly, they sought by all possible means to encourage and to develop foreign trade. Among the policies adopted for this purpose was the levying of certain import duties and the payment of some export bounties. Especially high duties were laid on goods the consumption of which was to be discouraged because the country concerned could not produce them—the English duty on the importation of wine, for example. Raw materials, such as silk, on the other hand, were admitted free into England because they could be manufactured into even more valuable products and then sold to foreign customers. Bounties were sometimes paid on the manufacture and exportation of goods such as silk the sale of which was particularly advantageous in developing foreign trade.

To develop foreign trade, mercantilists favored the establishment of colonies, which were looked upon by the mother country as possible sources of raw materials and as markets for her finished products. This is a key to the understanding of some of the strained relations between Great Britain and her American Colonies.

The establishment of great trading companies, like the East India Company, was another means for encouraging foreign trade. By conferring special privileges upon certain groups of merchants the government was enabled to regulate trade in a way that seemed most advantageous to the country.

Doctrine of a favorable balance of trade. In the furtherance of

the national interests of a country by the accumulation of the precious metals through foreign trade, it was necessary, said the mercantilists, for that country to have a favorable balance of trade. If English exports, for instance, exceeded imports in value, and this favorable balance was paid in gold and silver, English trade was considered healthy. The mercantilists' barometer of a country's economic condition was the relation of exports to imports.

Encouragement of manufactures. But if a country like England was to have a constantly favorable balance of trade, her best opportunity, the mercantilists argued, lay in the encouragement of manufactures. Accordingly, they emphasized the desirability of cheap raw materials, cheap foodstuffs, and a large population. Cheap raw materials and cheap foodstuffs enabled a nation to produce cheaply and increased its chances of marketing its goods to advantage abroad in competition with other nations. Similarly, a large population seemed desirable, for that meant keener competition for jobs, lower wages, and lower unit costs of production.

Encouragement of the shipping industry. Finally, to ensure a favorable balance of trade it was thought altogether desirable for a nation to carry the bulk of its exports and imports in its own ships. To do so was to retain the earnings of the carrying country within the country, instead of paying carrying charges to a foreign nation. Mercantilists, accordingly, sponsored the development of a merchant marine, including the building of ships, the improvement of harbors, and the procuring of seamen.

REACTION AGAINST MERCANTILISM

Mercantilism was neither a consistent body of economic doctrines nor a policy universally applicable. As a policy adapted to a particular nation and period, however, it worked very well. Although mercantilistic policies were highly restrictive, they served a useful purpose. Schmoller¹ has pointed out that mercantilism effected the transformation of local town economies into real national economies, stimulated national loyalty, and developed international rivalry, all

¹ Cf. Gustav Schmoller, *The Mercantile System and Its Historical Significance*, Ashley edition (New York, 1914).

of which, he thought, were necessary and desirable in the world's economic progress.

With the development of the capitalistic system and the spread of political democracy during the latter part of the eighteenth and the early part of the nineteenth century, the restrictions of mercantilism came more and more to be felt as onerous. The superior productive methods of the new industrialism had to be established all over the world. There were opportunities for the investment of capital everywhere. Competition was keen. Individualism was rampant. Men clamored for the abolition of restrictions on wages and hours, on free access to desired employments, occupations, or markets. Gradually the old mercantilistic restrictions were repealed or became dead letters. *Laissez faire, laissez passer*, became the slogan of the new economic order.

LEADING PRINCIPLES IN THE LAISSEZ FAIRE POLICY

Natural rights. The *laissez faire* attitude toward economic life was a reflection of the prevailing natural rights philosophy of the eighteenth century. The essence of the belief in natural rights lay in the conviction that the individual has some rights which are outside the province and greater than the power of the state. Our Declaration of Independence asserted: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain inalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness. That, to secure these rights, Governments are instituted among Men, deriving their just powers from the consent of the governed." The natural rights philosophy proclaimed an ideal order, the arrangements of which were perfect and the laws of which were an expression of the will of God. It breathed the spirit of optimism, the spirit that "God's in His heaven, all's right with the world". It was felt that the evils existing in society were due to the mistakes of man, that there was too much artificial restraint, too much interference with natural development, and that, if men could only get back to a state of nature and start again, all would be better.

Individual liberty. Among the most cherished of man's natural

rights was individual liberty. While liberty meant different things to different persons, to all it included exemption from restraint, disinclination to be controlled any more than absolutely necessary, the desire to be free to do as they chose, so long as such freedom did not interfere with the freedom of others. Advocates of the *laissez faire* policy insisted, and still do, that the employer should be free to hire men at whatever wages he could, and to discharge them whenever he pleased; they believed that the laborer should be allowed to work where and when he pleased and at any wage he chose to accept. Any restriction of action in employing men and in seeking employment was interference with man's natural liberty. Governmental regulation, they insisted, should be reduced to that minimum which is indispensable to the security of all. Let government confine itself to the protection of life, liberty, and property, and let each individual follow unhampered his own best interests. It was the philosophy and policy of the economically strong, not of the economically weak.

Self-interest. Advocates of the *laissez faire* policy believed that in a world of natural rights, foremost among which is individual liberty, the individual could be trusted to seek his own highest self-interest. What is more, they believed that the individual in pursuing his own highest self-interest inevitably promoted the welfare of all. Adam Smith, for instance, said: "Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of society which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to society."² The self-interest, to be sure, which would lead individuals to choose employments advantageous to society as well as to themselves, it was believed, must be a highly enlightened self-interest. Accordingly, *laissez faire* advocates favored education. Adam Smith, indeed, thought that man's self-interest must be guided by Providence.

Free competition. Finally, it must be understood that the advocates of *laissez faire* were ardent champions of free competition. In a world of natural rights where men had liberty to seek their

² *Wealth of Nations* (1776), Book IV, Ch. II.

own highest self-interest, it was argued that free competition could be depended upon to create the best possible economic system. If men are free to buy or sell commodities and services at such prices as they can agree upon, so ran the argument, the interests of all will be adequately safeguarded. Under the universal sway of free competition, the quality of goods will be kept up to the highest possible standards, and the prices of goods will be kept down to the lowest possible levels. The theory was that government should let men alone, allowing each individual to seek his own highest economic interest; in doing so, government was promoting the greatest social welfare, for the good of the individual is inevitably the good of society.

STRONG HOLD OF THE LAISSEZ FAIRE POLICY IN THE UNITED STATES

Nowhere in the world did this philosophy and policy of governmental non-interference in our economic life gain a stronger hold than in the United States. The reaction against mercantilism and the ascendancy of *laissez faire* were contemporaneous with the adoption of our federal Constitution and with the adoption of many of our State constitutions. Early American settlers, coming from European countries in which the people had been oppressed by autocratic governments and repressed by meddlesome economic interference, made up their minds that in this new country they would protect themselves against such unwelcome restrictions. Little wonder is it, then, that *laissez faire* principles are deeply imbedded in our constitutional and statute law.

Not only the environment from which our settlers came, but the character of those that came, accounted to no little extent for the popularity of the *laissez faire* policy in the United States. It is not the weaklings that migrate to a frontier country, but rather the venturesome and aggressive. The pronounced individualism of the American predisposed him to *laissez faire* conceptions.

What is more, conditions here tended to accentuate that individualism and aversion to restraint. America was preëminently a land of opportunity. Men wanted to be let alone in order to make

the most of the opportunity. The American frontier bred a spirit of intense individualism, which, emphasized by the *laissez faire* philosophy, led to flagrant waste and blind optimism. We Americans boasted of our country as a land of inexhaustible resources and looked upon waste with incredible complacency. What if we did waste our mineral resources? The earth was known to be full of others. What if we did permit hundreds of millions of cubic feet of gas to escape into the air? There was plenty more where that came from. What if we did permit our forests to be burned? God would, we believed, in His own good time and pleasure let other forests grow. Why worry about a crop failure in one part of the country? The country was large, and a failure in one place was bound to be balanced by a crop surplus elsewhere. Why bother about economic depressions? They were trying, to be sure, but everybody knew that they were followed sooner or later by periods of even greater prosperity. Evils must be expected, but after all the country was large, migration was easy, and what could not be endured in one place might be escaped in another. This happy-go-lucky spirit, this attitude of every man for himself and the Devil take the hindmost, was characteristic of an age and country in which man and circumstance combined to give the *laissez faire* policy its strongest hold.

THE REACTION AGAINST LAISSEZ FAIRE

For more than a hundred years the dominant attitude of government toward our economic life was that of non-interference. But increasingly during the past fifty years, in many important fields this attitude has been partly or completely abandoned. A number of compelling reasons accounted for the reaction against *laissez faire*. Prominent among these was the appearance of much social injustice in our economic life. Advocates of *laissez faire*, chafing under the restrictions of mercantilism, had cried out for liberty and had insisted that enlightened self-interest and free competition could be relied upon to safeguard the interests of all. But the liberty of individuals was often more negative than positive, more nominal than real. It was often the liberty of the strong to oppress the weak. Freedom of contract was often a snare and a delusion for those who

were weak in their bargaining power. The interest of each, even when it was properly understood, did not always, by any means, coincide with the interest of all. Witness the private advantage of monopoly. Many of the evils of the industrial period could not be eradicated by individual action. To remedy them required collective action, either on the part of an organized group or on the part of the government. A growing social conscience concerning the evils that appeared helped to bring about a partial abandonment of the *laissez faire* policy and the substitution of government control. Men came to see that it is a mistake to suppose that, as the functions of government increase, individual liberty is necessarily curtailed. They came to understand that intervention by the government might actually increase the individual's liberty of action by curbing those whose selfishness and greed lowered the entire level of competition, and that government is not only an agency of restraint, but also of liberation. Men came to appreciate that government in many fields, such as disease and danger, is often a better judge of what is the individual's highest self-interest than the individual himself can possibly be.

A second reason for the waning faith in *laissez faire* was the decline of effective competition. We Americans particularly had a superb faith in the effectiveness of competition to control the quality of the goods we purchased and the prices we paid for them. It was a rude awakening to realize that for many goods unrestrained competition did not exist. Competition failed to regulate adequately both the quality and the price of goods. "An article could be called pure fruit jelly and have no fruit in it; it could be called corn whisky and not a grain of corn be used in its manufacture; it could be named strained honey and a bee never have had anything to do with its making; it could be called maple sirup and never a drop of maple sap have entered it; it could be called butter and have no relation with milk or cream; it could be called boneless chicken and consist of immature veal."³ The injured individual might seek redress in the courts, but this usually proved impracticable because his loss was relatively small. There were many businesses in which competi-

³ C. R. Van Hise, *Concentration and Control* (New York: The Macmillan Company, 1912), p. 76.

tion failed to control prices adequately. There was a time when, in the field of the public utilities, the construction of competing lines was encouraged in the hope that they would compete against each other, thus ensuring the consuming public both excellent service and reasonable prices. The theory proved a hopeless failure. In some parts of the economic field the break down of competition was inevitable.

In the third place, the growing mutualism and economic interdependence of our time emphasized the shortcomings of the *laissez faire* policy. Specialization in our modern industrial society, which implies constant dependence upon the facilities of exchange, has brought about very great sensitiveness on the part of everyone to improper functioning of any part of our economic system. With so much at stake in the smooth and uninterrupted functioning of our economic system, and with so many chances that the selfishness or short-sightedness of men might "stall" it, *laissez faire* could not continue to be our economic policy in all particulars. Indeed, the *laissez faire* policy has proved to be better adapted to a period of small businesses and local markets than to our modern society of economically interdependent parts, in which employer and employee have lost contact, in which producer and consumer usually do not meet, and in which industry has characteristically become corporate in organization and impersonal in character.

THE POLICY OF GOVERNMENT CONTROL

It used to be much more common in this country than it is now to say that the ideal government was one which allowed every man to do as he pleased except when he interfered with someone else. We declared that government to be best which governed least. We insisted that the functions of government were essentially political, finding wisdom in the statement of Adam Smith that the three primary functions of government were to provide protection against external aggression, to promote security of person and property within a country, and to establish certain public works and institutions essential to the public welfare, but which cannot be provided through individual effort.⁴ How absolutely fundamental these politi-

⁴ *Wealth of Nations* (1776), Book IV, Ch. IX.

cal functions of government are, wars between nations and strife within countries are constantly reminding us. But to these distinctively political functions much has been added. The democratization of government during the past 150 years has led people to look upon it more as an agency for promotion of the general welfare than for oppression of individuals. For this reason and for the reasons cited in discussing the reaction against the *laissez faire* policy, government has come to take an increasingly important part in our economic life. While the intervention of government was at first chiefly for the purpose of curbing monopoly and of regulating the plane of competition, as under the "Square Deal" policy of Theodore Roosevelt, the regulatory functions of government have now been greatly extended, particularly under the "New Deal" policies of Franklin Roosevelt.

With the increasing importance of the government in our economic life has come increasing activity in politics on the part of economic groups designed to secure for themselves favorable political action or to prevent hostile legislation and administration. Conservative groups are struggling to keep our existing economic system essentially unchanged and to maintain the traditional governmental policy of non-interference with business and industry. Radical groups are eager so greatly to extend government control as to effect a complete economic reconstruction of society. Economic liberals are determined that whether our economic society remain essentially unchanged or undergo important transformations, all the powers of government shall be used to make it serve the common welfare.

CHAPTER XXXII

THE CONTROL OF FOREIGN TRADE: PROTECTIONISM AND FREE TRADE

USE OF TARIFFS TO CONTROL WORLD TRADE

Trade between countries has never been allowed to go on without some measure of government control. In spite of the great economic advantages to be derived from strict adherence to the territorial division of labor, international trade never has been free. It has always been a question of how much or how little restriction should be imposed, and for what purpose this should be exercised. Much trade restriction has been for the purpose of encouraging home industries in the struggle with foreign competitors. A highly diversified economic life is of advantage to a nation in the event of war, when foreign sources of supply may be shut off and foreign markets may be imperiled. Sometimes restrictions placed upon trade with foreign nations serve like a heart stimulant; they quicken the economic pulse of a nation as it strives to develop greater economic independence. Some restriction of trade is prompted by a spirit of reprisal; it is intended as punishment for offensive trade practices and regulations on the part of foreign nations. A good deal of trade restriction is not meant to be completely prohibitive, for it is designed to help raise necessary revenue for the government.

Throughout the mercantilistic era trade was minutely regulated by the state for the purpose of promoting national interests. When mercantilism broke down under the sheer weight of the burdensome trade restrictions developed during 300 years, Great Britain took the lead in the new policy of *laissez faire*, which included an attempt to establish international free trade. But in the adoption of a trade policy that even approximated free trade most other countries did not follow her example. For one reason or another they preferred to restrict trade among themselves. Furthermore, since the World War

there has been a world-wide intensification of protectionism, as the modern restriction of international trade is called. The new states created by the war have sought to diversify their economic life as much as possible within the limits set by their resources. Older states, the industries of which are already highly diversified, have not been particularly encouraged to lower their trade barriers by the intense spirit of nationalism which the war bred.

The favorite modern means for controlling international trade is through the imposition of tariff duties. As vessels sail through the Strait of Gibraltar into the Mediterranean Sea they pass a small but very strategically located Spanish town called Tarifa. Many years ago its inhabitants are said to have begun the practice of compelling passing merchant vessels to pay tribute. The practice spread, and the name of the old Spanish town has been perpetuated in our word "tariff",¹ which means now, as it did then, the schedule of charges levied by a country upon the movement of merchandise across its boundaries. Such tariff charges are also known as customs dues or duties. Tariff duties today are usually levied only upon imports of merchandise; the United States Constitution for example, prohibits export duties. Duties upon exports of merchandise, however, and even transit duties levied upon goods merely passing through a country, were once common. Mexico, for example, collects a duty upon petroleum exports.

Tariff duties are levied in accordance with either the ad valorem or the specific duty principle. An ad valorem duty, as its name implies, is a charge based on the value of the imported commodity, such as a 35 per cent duty on silk. Moreover, if the United States levies a 35 per cent ad valorem duty upon the importation of silk, shall this duty be based upon the value of the silk in the exporting country, like Japan, or upon its value in the United States? Both systems have been used, though the former is the more usual practice. Specific duties are charges levied against units of specified goods regardless of their market value, such as a tariff of \$4.50 per pound of cigars and cigarettes imported into the United States. Tariff schedules often present an intricate maze of duties combining the ad valorem and specific principles.

¹ Also in the French *tarif* and the Italian *tariffa*.

If the primary purpose of the government that imposes the customs duties is to raise revenue, the schedule of tariffs is usually known as a tariff for revenue only. Great Britain and Holland are the outstanding examples of countries which long had tariffs designed for revenue only. In such laws care is exercised to impose duties only upon those commodities that cannot advantageously be produced in the country levying the import duties. Great Britain, for instance, long levied duties chiefly upon tea, coffee, sugar, spices, and various other tropical products which could not profitably be produced in Great Britain. Now Great Britain has also adopted a protectionistic policy and greatly extended the number of duties.

But if the chief purpose of the government in imposing tariff duties is to encourage and develop home industries, then the law is described as a protective tariff. In such a law, duties are so fixed as to give the protected home industries a better chance to charge higher prices, and thus to meet their higher costs, than would be possible if international trade were wholly unrestricted. Nowhere has the system of protective tariffs flourished as it has in the United States.

It should be noted at the outset that the revenue and protection principles in a tariff law, if rigorously applied, are mutually exclusive. To the extent that a tariff law yields revenue, it fails to protect; and to the degree that it protects, it fails to yield revenue. Many protective tariff laws have been deliberately designed to shut out only some of the foreign competition, and thus to afford a measure of protection without destroying all revenue. It is by means of protective tariff laws that governments seek to restrict trade and to control it in their own interests.

THE ARGUMENT FOR PROTECTIONISM

What beneficent results do countries expect from the policy of protectionism? Is protectionism a policy equally useful at all times in a given country's history?

Promotion of nationalism. As the preceding introductory discussion has suggested, one of the foremost arguments in favor of a policy of protectionism is the fact that it helps to promote nationalism,

which is regarded as essential to both the security and prosperity of any people. In its emphasis upon nationalism present-day protectionism is akin to mercantilism. The erection of a tariff wall about a country, it is claimed, does two things: it helps to create a unified economic life within a country, and it helps to keep the foreign competitor out while this is being done. The economic unity of a people is a *sine qua non* for the development of a strong sense of political solidarity. Our federal Constitution, for example, prohibits the States from imposing any tariff duties upon goods moving from State to State. But the first law passed by our First Congress was a tariff law imposing duties upon the importation of goods from foreign countries.² Is it reasonable to suppose, asks the protectionist, that America's preëminent economic position could have been attained without such free trade within the country protected against foreign competition?

This patriotism-evoking argument for protection, based on the desirability of nationalism, has something to commend it when applied to nations in their youth. It loses most of its effectiveness, however, when applied to a nation in the full maturity of its economic life. The opponent of protection today is fond of pointing to the forty-eight States composing our Union as the greatest free trade area in the world, and contending that what is good for interstate trade would also be good for international trade.

Protection of infant industries. Further amplifications of the nationalistic philosophy of protectionism are the three arguments that follow: the protection of infant industries, the diversification of industries which is so desirable in the event of war, and the development of the home market. The protectionist argues that a high tariff is needed to foster infant industries. He asserts that if the material resources of a country are adapted to certain industries, such industries may be called into life earlier, through the fructifying influence of a protective tariff, than would otherwise be the case. He contends that the protective system merely speeds up the natural order of development. Implicit in his argument is the assumption

² Actually the tariff law is Chapter II of the Acts of Congress, but Chapter I is a purely administrative law entitled, "An Act to regulate the time and manner of administering certain oaths".

that the industries to be protected are true children and not adopted infants of the mother country. Protection furnishes the ultra-violet rays essential to their growth. A striking example is furnished by the coal-tar products industry of the United States, which was negligible prior to the World War. Medicines derived from coal-tar were expensive in the United States. "Aspirin" produced in Germany was selling for about \$10 per pound. A tariff protecting this infant industry resulted in the development of an industry for which our country is so well adapted that American "aspirin" (acetyl-salicylic acid) soon sold for \$1 per pound. Prior to the war we depended entirely upon Germany for our dyestuffs. The war made it necessary for us to supply our own needs. When the war was over, German competition, due to lower costs, could have crushed the dyestuffs industry. A protective tariff law enabled it to survive and gave it a chance to develop strength to stand on its own feet.

There is no question that this protection-of-infant-industries argument carried great weight in tariff controversies in the United States. Its strongest appeal has been made during periods of war, and of adjustment to the changed conditions following war. It was used with telling effect, as just suggested, to secure protection for the dyestuffs industry after the World War. But the argument is a time-honored offering in American tariff debates. It was convincingly used in the tariff discussions following the War of 1812, when many new American industries, born during the war, were seeking protection against European competitors bent upon recovering their American markets. It must be admitted that a protective tariff can greatly help a new industry through its early growing period. The cost of such protection, however, is usually higher prices to all consumers living within the tariff walls. The coal-tar products industry just cited is a notable exception. Whether the results justify the cost depends largely on this consideration: if the protected industry can soon hold its own in competition with foreign producers without the aid of further protection, the diversification of industries thus brought about may justify the higher prices temporarily paid by domestic consumers. But if after having benefited by protection during the years necessary for an infant industry to become a "going concern", this industry is still unable to meet foreign competition

without the aid of a protective tariff, there is reasonable doubt as to the economic wisdom of the policy.

In computing the cost of protection to a nation, it must not be forgotten that not only does the consumer pay higher prices for the products of protected industries, but some producers are adversely affected as well. Whenever any nation makes it difficult for foreigners to sell goods in its markets, that nation makes it just as difficult for foreigners to buy in its markets. Since some of its own industries may be partly dependent upon foreign exports, the policy of protection may work to the disadvantage of such producers, because their prospective foreign buyers may have no means of payment. To the extent, also, that any unprotected producer must buy goods the tariff-protected price of which is higher than it would be in a free-trade market, protectionism may be said to work to the disadvantage of the producer.

Desirability of industrial independence in the event of war. Resting over the whole protectionistic argument are the clouds of war. In the event of war, it is highly desirable that a nation should be as independent economically as possible. Protectionism by diversifying industries helps to create greater independence than the specialization which a policy of free trade inspires. The desire for the greatest possible economic independence was the clue to Germany's protection of her agriculture. To levy duties upon the importation of foodstuffs meant to raise prices for the consumer. But who that remembers the effective blockade of the Allied powers will say that the policy lacked justification from the German point of view? Because the people of Great Britain realize that their specialization in manufacturing and their neglect of agriculture would put them at serious disadvantage in the event of war, they have maintained supremacy on the seas. By defending their sea lanes they have accomplished the same purpose as the German policy of protection. Both policies are expensive, but whenever they are considered vital no nation will consider the cost. As long as war remains an imminent possibility, this argument for protection will strongly and rightly appeal to young nations with undiversified industries, as well as to old nations some of whose important industries cannot survive without a protective tariff.

In the present stage of world politics it requires no gift of prophecy to assert that a period of protectionism lies ahead. Only some form of international agreement with reference to the prevention of war and the establishment of permanent peace can clear the way for freer trade among the nations of the world. A thoroughgoing free trader, on the other hand, counters by saying that there can be no permanent peace until tariff restrictions are removed and the resulting economic interdependence shows the futility of war. Protectionism makes for nationalism; free trade is essential to the fullest development of internationalism. It looks as if we were hopelessly caught in a circle: the risk of war necessitates protective tariffs, so that a nation may have diversified industries; and the tariff barriers restricting international trade are themselves provocative of war. Is there no way out? The free trader says: Let nations have reasonable assurances as to their security and tariffs will come down. But low tariffs, and even more so free trade, will stimulate international business. Bigger and better business will increase the prosperity of all. To safeguard this prosperity more effective forms of international organization will be found. If protective tariffs are not really good business, but a price paid for temporary security, it is clear, argues the internationalist and free trader, that some form of international association to prevent war and to promote trade is highly desirable.

Development of the home market. The same nationalistic philosophy that inspired the three arguments just considered also underlies a fourth: the argument that protectionism helps to develop the home market. Part of this argument is based upon the assumption that home markets are better than foreign markets. If the producers of a country have home markets for their goods, neither war nor political changes in tariff policies will deprive them of a steady outlet for their products. Protectionism tends to force the citizens of a country to deal with one another rather than with foreigners. In American tariff history the argument was used very effectively by Henry Clay as a means of reconciling the agricultural South and West with the manufacturing North. He pointed out the advantages to the farming interests of the country in having near-by consumers of agricultural products. Develop a large industrial population, the

argument ran, and agriculture will never lack for buyers of its products.

Whatever validity this argument may once have had in the growing years of a nation's development, it can scarcely be said to apply with equal force, if at all, to a nation that has attained its full economic stature and strength. It should also be noted that a 100 per cent application of this argument by any nation would ultimately close its ports to foreign trade altogether. The protection of some home markets, and not of others, may necessitate material shifts in a nation's foreign trade. If the home market of a given industry, like rayon manufacturing in the United States, is protected through tariff charges that become prohibitive to foreign competitors who previously shared the American market, it means that other American industries will be adversely affected. The American markets of unprotected or less fully protected industries must absorb a correspondingly increased volume of foreign goods if there is not to be a diminution in American foreign trade. Inability of foreigners to sell in our markets means corresponding inability on our part to sell our own surplus goods abroad. The only escape from this dilemma, and the escape is but temporary, is the ability and willingness of a nation's investors to supply fresh credit to the foreigners buying in our markets, and to take the equivalent in foreign securities. Ultimately, however, both interest or dividends and the investments themselves, if paid at all, must be paid in goods bought by the nation extending credit in the form of loans.

Protection of labor against lower wage scales. Of a different type from the four protectionistic arguments just considered are the next two to be presented: the claim that protective tariffs are needed to safeguard high wage scales and the plea that they are necessary to prevent undesirable foreign "dumping". These arguments represent defensive rather than offensive strategy in the battle for world trade. Of all the claims, arguments, and pleas made for the protective system, perhaps the most popular in political campaigns in the United States has been the contention that protective tariffs are safety measures against low wages. Word pictures and cartoons have been used to depict low-paid foreign labor, often described, in order to heighten the effect, as "pauper labor". In contrast to the low

standard of living of most foreign laborers, the American workingman has been portrayed as enjoying a "full dinner pail", and this because he was working and living behind a high and strong protective tariff wall—a wall that shut out competition with goods produced by cheap labor.

In its original form the argument ran something like this: wages are higher in the United States than abroad; consequently, if the American manufacturer is to compete successfully with his foreign rival in the American market, a protective tariff is needed that will equalize the labor costs at home and abroad. Having won the protection and a resulting privileged position in the American market, it was easy for the manufacturer to slip into an argument in which his previous premise and conclusion were reversed. Seemingly forgetful of the earlier contention, he now argued that American wages were high because the tariff was high, and that to raise them even higher more protection was needed.

What validity, if any, is there in the claim that protection raises wages, or at least keeps them high? As was shown in the chapter on wages, the immediate cause of high or low wages is the productive efficiency of the worker. In this country labor has had the advantage of working with rich natural resources and a plentiful supply of capital goods. Upon the well-founded assumption that the skill of the American workingman is at least no greater than that of his European competitor, these external conditions alone account for a higher wage scale in this country.

While it is true that the American level of wages is higher than that of other countries, it is false to conclude that American labor costs are necessarily higher. Costs must be figured per unit of output. If American labor is most effectively applied in industries adapted to the country, wages per man may be higher and costs per unit of output may be lower than they are abroad. In such industries the presence or absence of a protective tariff has nothing to do with the existing wage scale.

If labor costs per unit of output, however, are higher in certain American industries than they are abroad, then it is unlikely that such industries would be able to survive without the protective tariff. It is true enough that industries which are wholly dependent upon

the protective tariff for their very existence can only afford to pay high wages, or for that matter any wages at all, to the extent that the tariff is continued. Even the most ardent free trader, if he be fair-minded, must admit that in such cases the sudden removal of the tariff would result not only in lower wages but also in unemployment. The real question pertains to the desirability of maintaining such industries, which brings us back again to considerations of infant industries, industrial diversification, and military necessity.

In general, protective tariffs have very little to do with determining wages. Protectionism and high wages do not necessarily go together. There have been times when wages were higher in free-trade England than they were in protectionistic Germany. In the United States under a protective tariff system, they have been as high in unprotected as in protected industries. What is more, there has been a good deal of insincerity in the claim that protection helps the workingman. Some of our most ardent protectionists, who have pleaded the cause of labor most earnestly when it meant procuring tariff duties for themselves, have been just as emphatic in their denunciation of any plan to restrict immigration or to put on the free list goods the workingman buys. And yet how can the workingman be helped more effectively than by restricting the number of competitors for his job and by lowering the price of the goods he buys!

Protection of domestic prices against "dumping". The other defensive argument for protection is the claim that protection is needed to prevent the foreign producer from "undercutting" domestic prices. "Dumping" is the term applied to this process of selling goods in foreign countries more cheaply than they are sold at home. The practice may be prompted by the desire of the foreign producer to dispose of a surplus that he cannot sell to advantage at home. It may be encouraged by his government when it pays export bounties to stimulate foreign trade, the bounty perhaps more than offsetting the temporary loss arising from selling abroad at prices that are below cost. More likely than not, the practice is motivated by the desire of the foreign producer to stifle competition by the country in which he "dumps" and thus to retain business for himself.

If the cut in prices could be regarded as permanent, the people

of the country affected might congratulate themselves on their good luck. They would profit at the expense of the foreign producer or of his subsidizing government. But there is usually a selfish rather than an altruistic purpose in "dumping". When the price-cutting producer has won or retained the desired market, he almost invariably raises his prices. And for a time at least he is without effective competition.

The protectionist argues that counteracting high customs duties are needed to protect home industry against such unfair trade practices. Most people familiar with the problem would agree with him. In this case, however, the high tariff is not so much a form of ordinary protection for home industries as it is a form of retaliation. "Dumping" is a form of unfair price discrimination, usually designed to eliminate troublesome competition and ultimately intended to raise prices; heavy import duties are the only forms of punishment a country can inflict upon the "dumping" foreigner who is outside the jurisdiction of its courts.

Assuming that the foregoing arguments fairly represent the thinking of protectionists, where does the case for protectionism stand? That protectionism fosters nationalism is true of nations in their youth, but this fostering influence is no longer needed when nations have attained economic and political maturity. That protectionism can materially help infant industries through their growing years must be granted. At the same time it must be understood that the protection is charged to consumers in the form of higher prices. The protection may be worth what it costs provided a nation's infant industries soon reach maturity, and then can dispense with protection. That diversified industries are a source of strength in the event of war, and that protection makes possible earlier and greater industrial diversification, must also be admitted. Only the attainment by a nation of a well-balanced economic life, or confidence in some form of international organization that can help provide security against attack, will deprive this argument of its cogency. That protectionism helps develop the home market is as true as that it helps to develop infant industries, and as inapplicable as an argument for a permanent protective tariff. That protectionism is needed to keep the general level of wages high is fallacious reasoning. And finally

that protectionism is sometimes warranted as punitive retaliation for offensive "dumping" must be allowed.

There is no question that, in the United States at least, much of the support of high tariffs is due to the belief that the policy of protectionism is good business. A strong popular opinion has been built up that prosperity depends upon protection. While it must be admitted that the prosperity of some of our industries is at least partly dependent upon the continuance of protection, it is illogical to conclude that constant association between prosperity and protection is assured or that prosperity is impossible under free trade conditions. Some of the popular support of protection, moreover, is based on the often refuted mercantilistic idea that there is something essentially desirable about a "favorable balance of trade". Protection is presumed to keep home industries busy; exports are thought of as constantly exceeding imports; and the nation is pictured as growing rich through collecting its favorable trade balance in the form of gold. But in fact, a free-trade nation may have a favorable balance of trade as readily as a protectionistic nation. The old argument that a favorable balance of trade is an index of national prosperity dies hard. It is not generally understood that rich creditor nations must as a rule import more goods than they export, no matter what their tariff policies may be, if they are to receive payments on their capital invested abroad.

THE ARGUMENT FOR FREE TRADE

The argument for free trade is simple, and its conclusion inescapable provided its premises be accepted. What the doctrine of free trade does is to apply the principle of specialization to international trade. Just as the introduction of the division of labor into industry effected great economies of production, so it is argued the establishment of an international division of labor will lower costs and, if trade be free, make possible lower prices to the consumer. The whole free-trade argument in its economic aspects rests squarely upon the principle of comparative costs. If a country organizes its productive industries in accordance with the principle of comparative costs, it will produce those goods in the production of which it enjoys the

greatest advantage or suffers the least disadvantage in comparison with other nations.³ If the United States can produce both shoes and cutlery more cheaply than England can (to put the principle in its most emphatic form), but has a much greater advantage over England in shoes than in cutlery, it will still pay us to specialize in the production of shoes and to import our cutlery from England, provided transportation costs do not wipe out the comparative advantage. It is further assumed that the supply of each commodity produced will meet both the American and English demand, and that the demand is great enough to absorb the supply. A given nation may be favorably endowed with rich natural resources, or its people may have the technical skill and equipment that make for superior productive efficiency in certain industries. If a nation devotes itself to those industries in which its labor and material resources can be most effectively applied, three things can be accomplished, provided that international trade be free. In the first instance, there will be maximum productivity for the people so applying itself; secondly, there will be the largest possible surplus of purchasing power with which to buy the goods of foreign nations; and thirdly, the foreigner will be benefited by being able to buy goods produced at the lowest possible cost.

From a strictly economic point of view, the argument for free trade is flawless. And yet protectionism dominates the trade policies of the world and is so strongly entrenched in public opinion and practical politics that its abandonment is apparently only a remote possibility. How can this divergence between sound economic theory and practical political policy be explained? The answer is simple. International trade policy is not based on economic considerations alone. Political considerations, based on nationalism and military needs, are powerful influences today, as they have been in the past, in shaping the trade policies of nations. On economic grounds the presumption is strongly in favor of free trade. If nations, in spite of the obvious advantages of an international division of labor, seek to control foreign trade, it must be for non-commercial purposes that are regarded as being of greater importance. Measured in economic terms the attainment of these objectives is costly. The high duties of

³ Cf. Chapter XIV, "International Trade and Exchange", p. 353.

a protective tariff are the price paid for the attainment of political objectives. It may be that the price paid is warranted by the state of world politics, but it must be recognized as a cost none the less, and justified only on non-economic grounds.

The cost of protection is indirect and widely diffused. The duty is paid at the outset by the merchant or manufacturer who imports goods. He passes it on, however, to the consumer, who ultimately bears it in the higher prices he must pay for the goods he consumes. But the consumer usually pays it in ignorance of the fact that prices might be lower were it not for the protective tariff. What is more, the additional price he pays may seem unimportant in a single transaction, even if it is large in the aggregate. The result usually is indifference and lethargy on the part of the consumers who pay the bill, unless unusual economic or political conditions arouse them to action. Merchants and manufacturers, on the other hand, who are the immediate beneficiaries of the protective system, are keenly conscious of their special interests and alert to protect their privileges. Perhaps a contributory reason for the persistence of protectionism as a political policy lies in the fact that, while the majority of consumers are uninformed or indifferent as to their interests, the minority of producers are organized to obtain and retain the protection they desire.

THE TARIFF POLICY OF THE UNITED STATES

In a relatively new country like the United States, it is to be expected that the tariff policy will constitute a major political issue. Throughout the greater part of our history, the products of agriculture and other extractive and genetic industries (principally foodstuffs and raw materials) constituted the bulk of our exports. More recently manufactured products have come to represent a much larger part of our total exports, in 1930 accounting for 73.4 per cent. The changing character of our economic life, and the resulting changes in the composition of our foreign trade, have not been without their influence upon tariff debates and policies.

Like Caesar's Gaul, the tariff history of the United States is divided into three parts. The first period lasted from the establishment of our federal government in 1789 to the close of the Napoleonic wars

in 1815. What tariff duties we imposed upon imports were for revenue only. Our first tariff law enacted in 1789 levied an average rate of duty of only $8\frac{1}{2}$ per cent.⁴ But the War of 1812 drew us into the Napoleonic strife that was tearing Europe. Prior to our actual participation in the war, the British Orders in Council (1807) and our own Embargo (1809) and Non-Intercourse (1809) Acts had played havoc with our foreign trade. By act of Congress and subsequently by the fact of war, our usual importation of manufactured goods dwindled. This furnished a tremendous impetus to the development of American manufactures. When at the conclusion of the war European manufacturers sought to recoup the American market through the process of "dumping", an irresistible movement for protection arose. The protection of infant industries and the need of industrial diversification for military purposes proved to be conclusive arguments and resulted in a shift from the revenue only to the protectionistic basis in our tariff policy.

The second period in our tariff history lasted from 1816 to the outbreak of the Civil War in 1861. It was a period of protection, but the scale of duties was low in comparison with the level of duties that has come to prevail since the Civil War. The tariff of 1816 marked the transition from the tariff-for-revenue-only basis of the first period to a low protection base. While as a rule the scale of duties imposed by the Act of 1816 was not as high as it had been during the preceding war years, it was distinctly higher than it had been during the peace years of the first period. The average rate of duty approximated 20 per cent. From the tariff of 1816 to the tariff of 1828 there was a sharp upward tendency in duties. The high point was reached in the Act of 1828, which aroused much vehement criti-

⁴ Average ad valorem duties for any year are calculated by comparing the amount of duties collected with the value of the dutiable goods. In the case of goods subject to a specific rather than an ad valorem duty, it is necessary to make a similar comparison. It is only by reducing all duties to an ad valorem base that it is possible to compare the average rates of different tariff acts. Since some goods are placed on a free list, it is further necessary, in order to calculate the real burden of tariff charges upon imports, to compare the aggregate duties collected in a given year not only with the value of the dutiable goods but also with the value of the dutiable and non-dutiable goods combined. Even so, average ad valorem rates are sometimes misleading when used to compare the burden of various tariff laws, for high rates may prohibit imports altogether. The average ad valorem rate is in consequence not a true index of the whole burden that the tariff imposes.

cism and came to be known as the "tariff of abominations". Its scale of duties was singularly high for this period, reaching an average of 48 per cent on dutiable goods and 45 per cent on free and dutiable imports together in 1830. From this time onward to the close of the period in 1860 the level of duties declined. At the close of the period it was about the same as at the beginning: approximately 20 per cent of the value of dutiable imports. Among the causes effecting the downward trend of tariff rates were the maturing of infant industries, making protection less necessary, the increase in governmental revenues from other sources, and the political revolt of the South against high tariffs, which it considered a handicap rather than a help to an agricultural region.

Beginning with the Civil War, the United States entered upon the third period in its tariff history. This in the main has been a period of high protection, which has lasted until the present day. United States treasury receipts had declined during the years following the panic of 1857. The Civil War required enormous new revenues. The natural result was a sharp advance in tariff duties. The Morrill Act, passed in 1861, and amended in 1862 and 1864, brought the highest level of duties since the Act of 1828. In the period 1862-1865 the average *ad valorem* rate on dutiable goods rose to 38 per cent. The peak of Civil War tariff law rates, however, was not reached until 1868, when the average rate on dutiable imports stood at almost 49 per cent. Contrary to general expectations, the close of the war brought no downward revision of the tariff comparable to rates prevailing prior to the War. Instead high protection became the established policy of the country. Political opposition to high tariffs from the South lost much of its effectiveness as a result of the War. And Northern manufacturers knew what they wanted and how to get it.

Tariff revisions in the seventies and eighties, while conceding something to the popular demand for lower rates, did not disturb the principle of high protection. Whatever reductions were made, moreover, were more than wiped out by the McKinley Act of 1890, which established average rates higher than any in our history up to that time. In the years of its operation the average rates were approximately 49 per cent on dutiable goods.

When the Democratic Party in the election of 1892 obtained full control of the government for the first time since the outbreak of the Civil War, it took advantage of its power to lower the tariff. The Wilson-Gorman Act of 1894, however, while reducing duties, did not effect nearly so great a change as had been expected. For the three fiscal years (1895-1897) of its operation, the average ad valorem rates on dutiable goods were 41 per cent, and on dutiable and non-dutiable goods together 21 per cent.

The Republicans interpreted their victory in the heated campaign of 1896, fought on the money question, as a solemn mandate immediately to revise the tariff. The Dingley Act of 1897 was the result. It again established a distinctly higher level of protectionistic duties. During one of the early years of its operation, the fiscal year of 1899, the average rate on dutiable goods was 57 per cent. For the twelve years, 1897-1909, that the law was in force (a remarkably long period for an American tariff law), the average rate was 47 per cent on dutiable goods and 26 per cent on dutiable and free list goods combined. One of the reasons for the long life of the Dingley Act was the fact that prosperity began to return to the country, after the severe depression of the nineties, in the year that it was enacted. The Republicans not unnaturally claimed credit for the welcome change and attributed it to the policies for which they stood, including that of a high protective tariff. Working against any tariff change was the absorption of the country in other issues—the Spanish-American War and the movement for railroad regulation, for example. During the latter part of the Dingley tariff period, however, there were frequent and loud demands for a downward revision of the tariff. This time the cry came not as usual only from consumers and farmers, but also from some of the manufacturers themselves. The general level of prices had been rising, with consequent increases in the cost of living. The consumer looked hopefully to tariff reduction as one means of relief. The farmer came to regard with suspicion a protective tariff that offered him no apparent benefit. Some manufacturers began to feel the pinch of duties collected on raw materials needed in their manufacturing processes. Others realized that the character of the country's foreign trade was changing and that our high tariffs were not the most conciliatory means of winning easy ac-

cess to foreign markets in which to sell our surplus of manufactured goods. This changing sentiment in regard to the value of high protection again made the tariff an issue in the presidential campaign of 1908, both Republicans and Democrats promising a revision of the tariff.

The ensuing revision of the tariff undertaken by the Republicans was the Payne-Aldrich Act of 1909. In their campaign platform they had yielded to the pressure of public opinion and promised a revision of the tariff, but insisted that protection should be high enough to cover the difference between cost of producing a commodity at home and producing it abroad. This principle appealed to a country steeped in protectionism, even though its general application would have wiped out the advantages of international trade altogether. The actual changes in the tariff law made by the Payne-Aldrich Act resulted during the period of 1909 to 1913 in average rates of 41 per cent on dutiable goods and 19 per cent on all goods imported. This rather small reduction proved a great disappointment and aroused such a storm of criticism that the tariff again became a major issue in the election of 1912.

This time the Democrats were successful and promptly revised the tariff downward by passing the Underwood Act, which became effective in 1913. It brought the first material reductions since the Civil War. Many goods, such as raw wool, raw sugar (beginning May 1, 1916), and boots and shoes were put on the free list. Rates in general on dutiable goods were reduced, an attempt being made especially to lower the duty on goods ordinarily regarded as necessities and to impose the higher duties upon luxuries. During the operation of the Underwood Act (the fiscal years 1914–1921, in which trade was greatly disturbed by the war), the average rate of duty on dutiable goods was 27 per cent, and on all goods imported 9 per cent. Though a Democratic tariff, it retained the protectionistic principle. The World War effected great changes in our foreign trade; the composition and source of our imports shifted, though their volume increased; and the amount and value of our exports expanded to unheard-of magnitudes.

The close of the War, and the return of the Republicans to power in the election of 1920, again brought the tariff into the limelight

of discussion. There was fear that cheap foreign goods would flood the American market. Our new dyestuffs and chemical industries demanded protection. The depression beginning in the summer of 1920 resulted ultimately in the unemployment of five to six millions of persons. The cumulative effect of all these influences was another upward revision of the tariff. After a brief experience with a so-called "emergency tariff", the Fordney-McCumber Act of 1922 was passed. Important goods, such as wool, on the free list of the Underwood Act, were again made dutiable. Some of the rates imposed were the highest on record. During the years of its operation, 1922-1930, the average ad valorem rates on dutiable goods amounted to 39 per cent, and on dutiable and free imports together to 14 per cent.

After some public discussion in the presidential campaign of 1928, followed by protracted debates in both the special and the regular session of Congress in 1929, the Fordney-McCumber Act was replaced by the Hawley-Smoot Act of 1930, which distinctly maintains the principle of high protection. For the period 1930-1933 the average rate on dutiable goods was 53 per cent, and on the value of all goods imported 18 per cent. Congress did not see fit to move in the direction of substantially lower duties in spite of the fact that world economic conditions had materially changed when this latest tariff act was passed. When a nation has, as the United States had, large surpluses in many lines of productive effort which the home demand cannot absorb, and when this same nation is the large-scale creditor of other nations whose chief means of payment lie in exporting more goods than they import, the erection of high tariff walls seems ill advised. High tariffs by an important commercial nation invite retaliation. High tariffs by an important creditor nation make much more difficult the settlement of international debts.

One new feature first incorporated in the Fordney-McCumber Act, and retained in the Hawley-Smoot Act, is the flexibility principle. The President of the United States is authorized, if investigation by the Tariff Commission establishes the fact that our duties are more or less than enough to offset differences in costs of production at home and abroad, to decrease or increase the duties by a maximum of 50 per cent of the prevailing duties. If necessary to afford adequate protection, the duty may be figured as a percentage

of the American selling price rather than of the cost of the good in the country exporting it. In a number of cases the President has seen fit to exercise his powers under the flexibility provisions of our recent tariff laws. While its sponsors have claimed that this provision for elasticity in our tariff schedules would go far toward making the tariff more "scientific" and "taking it out of politics", it seems unlikely that it will accomplish either. The flexibility principle is based upon equalizing differences between cost of production in the United States and in the principal countries exporting competing goods to us. For a number of reasons the cost equalization principle is exceedingly difficult to apply. The cost of producing some goods, wool for example, cannot be accurately determined. In selecting American costs, whose costs shall be used as a standard of comparison with foreign production costs? Shall it be the low-cost producer of a commodity or the high-cost producer? Moreover, it is often exceedingly difficult for any governmental body to ascertain foreign costs with any degree of accuracy. Altogether these are decided limitations upon the usefulness of the equalization of costs principle.

The flexibility principle in our tariff rates was again recognized in the Reciprocal Tariff Act approved by the President on June 12, 1934. This act authorizes the President during a period of three years to negotiate agreements with foreign nations for the purpose of effecting trade expansion and empowers him to change existing tariff rates as much as 50 per cent if he deems such concession to foreign nations necessary in order to win markets within their territories for American goods. Such reciprocal trade agreements do not require the usual ratification by the United States Senate. A beginning toward the reciprocal lowering of tariff rates has been made in the treaties the United States has made with Cuba, Brazil, and Canada.

The preceding review of some of the more important developments in the tariff policy of the United States reveals at least two things: the scrambling of tariff issues with political considerations, and the growing adherence through more than a hundred years to the principle of protection.

The United States Tariff Commission. Since 1916 Congress has recognized the need of having a fact-finding body constantly at work

gathering data for its use in making tariff changes. The United States Tariff Commission, created in that year and reorganized under special congressional sanction in 1930, is a permanent, bipartisan board, composed of six members, appointed for overlapping terms of twelve years each. Its duties are essentially investigative and advisory. Its investigations may be prompted by the demand for tariff changes by interested parties, or upon request of the President, or on resolution of either house of Congress. During its lifetime the Commission has prepared an exhaustive "Tariff Information Catalog". This is an encyclopedia of information concerning every commodity mentioned in our tariff acts, including the amount of imports and exports, volume and costs of production, and competition between domestic and foreign producers. The need of such information is evidenced by the fact that the present tariff act lists more than 3,300 items. The Tariff Commission, however, has no power of its own over tariff rates. It has nothing to do directly with shaping our tariff policy. Even the recommendation of legislation lies outside its prerogatives. It has wide latitude only in gathering information concerning the operation of our tariff laws and assembling data upon which future tariff laws may, in the discretion of Congress, be based.

One important duty, however, imposed upon the Commission by the Fordney-McCumber Act and reaffirmed by the Hawley-Smoot Act is the duty of recommending changes to the President in connection with the application of the flexibility principle. If the Commission finds that rates are either too high or too low to accomplish the purpose of equalizing the difference between home and foreign costs of production, it may recommend that the President exercise his power to lower or to raise the existing scale of duties within the legal limit of 50 per cent. In the ten years, however, that have passed since its authorization, this power has been exercised very infrequently. When exercised, moreover, it has usually been to raise rather than to lower rates. The rates on relatively unimportant items, like paint-brush handles and bob-white quail, have been decreased, while the rates on such important commodities as pig-iron and linseed oil have been increased. The Commission's recommendations must be limited to changes in existing rates; it can make no

changes in the congressional classification of imports as dutiable and free by recommending the transfer of commodities from one list to the other.

It is obvious that a Commission without power can do little either toward making the tariff more "scientific" or toward "taking it out of politics". Critics of our log-rolling methods of tariff-making have urged that Congress should delegate its tariff powers to the Tariff Commission, just as the powers over railway rates in interstate commerce have been delegated to the Interstate Commerce Commission. Both tariff schedules and railway rate structures are so complicated that the constant study of experts is essential in order to determine what charges can reasonably be made. It is unlikely, however, that Congress will soon surrender, even to a subordinate body, its powers to levy duties on imports as it sees fit.

Future American tariff policy. While for a hundred years and more the tariff policy of the United States has been protectionistic, and for the present at least it is unlikely to be changed, the economic situation of the country now permits, and certain new conditions necessitate, material revision in the not distant future. The time-honored arguments for protection do not carry as much weight today as they did in the nineteenth century. No mere change in tariff policy will reduce our feeling of national unity. Our numerous infant industries have almost all reached sufficient stature and strength to make their own way in the world, unaided by protection. Nature has endowed us so richly as a country, and our large population is so well trained, that our industries have become highly diversified, which guarantees industrial independence in the unhappy event of war. Few, if any, home markets would now be completely lost as a result of tariff reductions. They would be shared with the foreign producer with gain to the home consumer.

One of the new conditions that seems likely to effect a change in our tariff policy is the relative increase of manufactured goods in our export trade. We are no longer a nation whose exports consist overwhelmingly of foodstuffs and raw materials, which was the case throughout the nineteenth century. As we are confronted with the necessity of importing some raw materials and of finding foreign markets for our surplus manufactured goods, a high protective tariff

system operates to the disadvantage of some of our industries. It invites similar high tariff laws on the part of other nations, which partly or wholly closes the doors to our goods.

Of supreme importance in considering our future tariff policy is the recent shift in our position from a debtor to a creditor nation. Prior to the World War we were a debtor nation. Streams of goods flowed to Europe in payment of the annual interest and dividends on European investments here. But the great bulk of European investments in the United States was liquidated during the war. To-day European governments owe the United States about eleven billions of dollars, and private borrowers all over the world owe private American investors seventeen billions of dollars more. The annual charges on this enormous foreign investment can only be paid in goods exported directly or indirectly to us by our debtors. The nation that lends its capital abroad must be willing to receive payment in goods, for surplus goods are the chief means of payment available to debtor nations. High protective tariffs are hurdles which make it difficult, if not impossible, for debtor nations to meet their obligations. If we wish to receive full returns on our foreign investments, not to mention the liquidation of any part of the debts themselves, we must adopt a tariff policy that will permit the foreigner to sell his goods in the American market. We cannot successfully play the rôle of the world's banker and at the same time make it as hard as possible for the world to trade with us.

The need of bigger markets for American manufactured goods, and the necessity of accepting at least the income from our foreign loans and investments, have brought the policy of protection under severe criticism. But even if we accept the trade implications of these new conditions, it does not follow that we should at once abandon the whole of our protectionistic policy. To do so would be to disrupt industries that have long been the beneficiaries of the protective system and to imperil both the capital invested in them and the labor employed by them. This would have far-reaching effects throughout the whole of our economic life and would prejudice the whole case for free trade. The free trader must remember that much of the foundation of American business rests on protection. These foundations cannot be completely or quickly changed without pre-

capitating a crash of the whole structure. But if the changes are made gradually, there is no undue risk and the foundations of business may actually be improved.

What the new position of the United States in world economic affairs calls for is recognition of the fact that protectionism cannot be a permanent policy pursued without reference to the changing character of a country's economic life. The good of yesterday is not necessarily the good of today and tomorrow, even in tariff matters. Historically the policy of protection was designed for the weak. Should it be a permanent policy for the strong? Not free trade necessarily, but certainly much freer trade is the direction indicated for the United States under the new world conditions. The interests of certain large and powerful groups, including farmers, international bankers and the investors they represent, manufacturers in search of world markets, and consumers interested in lower prices, all demand substantial reductions with ultimate elimination of tariff charges. And who will deny that a state of specialized production with free trade, which makes for the greater prosperity of all, will not also prove a powerful force making for the peace of the world?

CHAPTER XXXIII

THE CONTROL OF INDUSTRIAL COMBINATIONS

Big business, we are sometimes told, needs no more control by the government than does small business; the mere bigness of an enterprise should neither condemn it nor raise suspicions concerning it. But unfortunately for the truth of this contention, big business has so often imperiled the very existence of small business, has so often discouraged the establishment of new business enterprises, and has so frequently obtained some measure of monopoly power that public interest has required the exercise of government control. Thomas N. Carver has expressed the thought most effectively in the following passage:

The larger the corporation, the greater is its power for good or evil, and that makes it especially important that its power be under control. . . . If I may use a homely illustration, I will take the common house cat, whose diminutive size makes her a safe inmate of our household in spite of her playful disposition and her liking for animal food. If, without the slightest change of character or disposition, she were suddenly enlarged to the dimensions of a tiger, we should at least want her to be muzzled and to have her claws trimmed, whereas if she were to assume the dimensions of a mastodon, I doubt if any of us would want to live in the same house with her. And it would be useless to argue that her nature had not changed, that she was just as amiable as ever, and no more carnivorous than she always had been. Nor would it convince us to be told that her productivity had greatly increased and that she could now catch more mice in a minute than she formerly could in a week. We should be afraid lest, in a playful mood, she might set a paw upon us, to the detriment of our epidermis, or that in her large-scale mouse-catching she might not always discriminate between us and mice.¹

As was shown in an earlier chapter,² the interlocking of corporate business units, whether such combinations became monopolies or not, has always raised an important principle of public policy. It is the

¹ *Essays in Social Justice* (Boston: Harvard University Press, 1915), pp. 329-332.

² Cf. Chapter VI, "Capitalistic Combinations".

purpose of the present chapter to set forth the more important steps that have been taken in the government's attempt to compel combinations to observe the rules of our competitive régime.

LEGAL DOCTRINES RELATING TO COMBINATIONS

Combinations have been caught in the meshes of both the common and the statute law. The common law has grown out of the usages of people, and as expounded from time to time by the courts it has come to have the sanction of precedent. Statute law is a matter of legislative enactment. It takes precedence over the common law on a given subject, since it is a deliberate, formal expression of the will of society. Statutory enactments concerning combinations were late in appearing; there was no federal statute on the subject in the United States until the Sherman Anti-trust Act of 1890. Prior to that time, however, a substantial body of common-law practices and doctrines had already grown up.

The earlier combinations in this country came in conflict with the common-law principle forbidding undue restraint of trade. What constituted undue restraint of trade was not clearly defined, but was left for determination in the light of all the facts in each specific case. Gradually a distinction was established at common law between reasonable and unreasonable restraint of trade. Contracts and combinations in partial restraint of trade were held to be reasonable and accordingly valid. But contracts in general restraint of trade or combinations that suppressed competition and controlled prices were held to be unreasonable and accordingly void. The criterion of unreasonable restraint of trade lay in whether or not a particular combination was subversive of the public welfare. Some courts were extravagantly generous in the amount of trade restriction which they allowed to stand as reasonable. On the whole, however, the legal status of combinations under the common law was rather uncertain. It was always a matter for court determination. It was this common-law doctrine of undue restraint of trade which invalidated such pools as destroyed competition.

Closely akin to the common-law principle forbidding unreasonable restraint of trade was the common-law prohibition of the forma-

tion of partnerships of corporations. To form such combinations was an unwarranted delegation of corporate powers; the corporations so combining were acting *ultra vires* (were exceeding their legal powers). It was on this principle that the early trusts were declared illegal. The courts held in the so-called sugar trust³ and oil trust⁴ cases that the combining corporations had exceeded their powers and violated the conditions on which the State had granted them corporate life. Consequently, the agreements were null and void. These decisions of the courts caused the abandonment of the trust device as a type of corporate combination, such trusts being perverted forms of an otherwise very useful mode of property-holding. While the right of one corporation to hold the stock of other corporations does not exist under the common law, this right has now been expressly granted by many States in their incorporation laws. Holding companies and mergers are legally permissible forms of combination only because legislative bodies have chosen to make them such. General authorization for intercorporate stockholding was first granted in this country by New Jersey in 1889, but since then has become common. While statute law now sanctions intercorporate stockholding under certain limitations, this does not mean that corporations may form combinations in general restraint of trade.

Indeed, the rapid growth of combinations, many of which were monopolistic, led to a vigorous and widespread demand for legislation that would definitely outlaw these combinations. The result of this agitation was the enactment by Congress in 1890 of the so-called Sherman Anti-trust Act. This act in its opening section declares: "Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several states, or with foreign nations, is hereby declared to be illegal." This seemed at the time of its enactment to be a sweeping denunciation of all combinations in restraint of trade. Similar laws have since been passed in many States, doing for intrastate trade what the federal statute seeks to accomplish for interstate trade.

For more than two decades there was no intimation by the Su-

³ 121 New York 585 (1890).

⁴ 49 Ohio State 137 (1892).

preme Court that the Sherman Act meant anything less than the prohibition of all combinations in restraint of trade, whether monopolies or not. In 1911, however, the Supreme Court of the United States in the *Standard Oil Company* and the *American Tobacco Company* cases (discussed later in this chapter) held that the Sherman Act means to prohibit not all combinations in restraint of trade, but only those which are monopolistic. The court laid down the "rule of reason", saying that combinations might be in reasonable restraint of trade and accordingly be declared legal, or they might be in unreasonable restraint of trade and accordingly be declared illegal. In thus applying the "rule of reason" to combinations, the Supreme Court has by interpretation of statute law reestablished the older common-law distinction between reasonable and unreasonable restraint of trade.

In summary, it may be said that the legal status of combinations has turned on the application of four "rules": (1) the common law prohibiting unreasonable restraint of trade; (2) the common law forbidding intercorporate stockholding—a practice since legalized by statute law; (3) the statute law prohibiting all restraint of trade; and (4) the rule of reason applied to combinations by the courts in interpreting the statute law.

THE SHERMAN ANTI-TRUST ACT

Provisions. The Sherman Anti-trust Act of 1890, which passed Congress with only one dissenting vote, is one of the briefest, yet most comprehensive, statutes ever passed by Congress. The law contains only eight short sections and less than 1,000 words. Its provisions may be briefly summarized as follows.⁵ The first section, as already stated, prohibits combinations in restraint of interstate or foreign trade. Section two forbids monopoly or the attempt to monopolize. Section three does for the territories of the United States and the District of Columbia what section one does for the States. The next three sections designate the legal agencies and means for preventing violations of the act. Section seven is the famous triple damages section. It allows the injured person to sue the

⁵ Cf. Appendix for full text of the act.

offending party, and if the fact of his injury be sustained, to "recover threefold the damages by him sustained, and the costs of suit". The eighth section stipulates that the word "person", as used in the act, "shall be deemed to include corporations and associations", regardless of the place of their incorporation.

Relatively little use was made of the Sherman Act in curbing combinations during the first ten years of its history. An adverse decision of the Supreme Court with reference to the applicability of the act, together with the prolonged economic depression of the nineties, which was not particularly conducive to the creation of combinations, were largely responsible for this. Some idea of the growing importance of the statute may be gathered from the following numbers of prosecutions instituted in the administrations of our federal government during which the act was in force: ⁶

Harrison's Administration (1890-1893)	7
Cleveland's Administration (1893-1897)	8
McKinley's Administration (1897-1901)	3
Roosevelt's Administration (1901-1909)	44
Taft's Administration (1909-1913)	80
Wilson's Administration (1913-1921)	90
Harding's Administration (1921-1923)	50
Coolidge's Administration (1923-1929)	83
Hoover's Administration (1929-1933)	26

The meaning and scope of the act, which represents the government's greatest attempt to control combinations, can be best understood by considering a few of the most significant United States Supreme Court cases that have arisen under it.

Knight Case. The first case decided by the Supreme Court under the Sherman Anti-trust Act was the case against the "sugar trust", a case known as *United States v. E. C. Knight Company*.⁷ The facts in the case were as follows. The American Sugar Refining Company had, prior to 1892, obtained control of all of the cane-sugar refineries in the United States, with the exception of four in Philadelphia—the E. C. Knight Company, the Spreckels Sugar Refining Company, the Franklin Sugar Refining Company, and the Delaware Sugar House—and one in Boston—Nash, Spaulding and Company,

⁶ U.S. Department of Justice, *The Federal Anti-trust Laws* (1930).

⁷ 156 U.S. 1-46 (1895).

later known as the Revere Sugar Refining Company. The four Philadelphia companies refined about 33 per cent and the Boston Company about 2 per cent of the total amount of sugar refined annually in the United States. Early in 1892 the American Sugar Refining Company, by purchasing the four Philadelphia refineries, acquired control of 98 per cent of the sugar refining of the country. The bill of complaint of the United States charged that the American Sugar Refining Company by effecting this combination was monopolizing the manufacture and sale of refined sugar in the United States and controlling its price.

The proceeding against the sugar trust failed because, as the court said, "the contracts and acts of the defendants related exclusively to the acquisition of the Philadelphia refineries and the business of sugar refining in Pennsylvania and bore no direct relation to commerce between the States or with foreign nations". The court held that manufacturing was not commerce, and that the government had failed to show any direct interference with interstate commerce, such as is prohibited by the Sherman Anti-trust Act. This decision of the court cast great doubt upon the power of the federal government to suppress combinations. At least the decision seemed to leave all control over merely manufacturing combinations to the several States. The decision gave a new impetus to the combination movement, which developed rapidly after the country's emergence in 1897 from a four-year depression. Subsequent decisions of the Supreme Court, as shown later in this chapter, revealed the fact that the federal government had adequate power under the statute to control combinations.

Northern Securities Company Case. In the Northern Securities Company Case ⁸ the United States challenged the legality under the Sherman Act of a great railway combination. In 1901 the Northern Securities Company had been organized in New Jersey as a holding company with a capital stock of \$400,000,000, for the purpose of obtaining a controlling interest in the Northern Pacific railway and the Great Northern railway, two competing roads in the Northwest. The Northern Securities Company in exchange for its own stock had acquired 96 per cent of the stock of the Northern Pacific and 76

⁸ Northern Securities Company v. United States, 193 U.S. 197-411 (1904).

per cent of the stock of the Great Northern, which two roads had already somewhat earlier purchased approximately 98 per cent of the stock of the Burlington. The government in its bill of complaint alleged that the Northern Securities Company was a combination in restraint of interstate trade and accordingly in violation of the Sherman Act.

By one of its memorable five-to-four decisions, the Supreme Court sustained the contention of the government and ordered the company dissolved. The dissolution was effected by giving to the stockholders of the Northern Securities Company in exchange for their stock pro rata stockholdings in both the Northern Pacific and the Great Northern. The significance of the decision lies in the fact that it showed that a holding company was vulnerable to legal attack when its operation tended to stifle competition or to promote monopoly. It was the first case in which a holding company was attacked under the statute. The court decision produced a temporary paralysis in the combination movement.

Standard Oil Company Case. In the summer of 1911 the Supreme Court handed down two decisions which have materially changed the subsequent interpretation of the Sherman Act and the legal status of combinations, namely, decisions in the suits brought for the dissolution of the Standard Oil Company and the American Tobacco Company. These two cases were somewhat spectacular by reason of the mere size of the combinations involved. Both had attained world-wide importance. When the government challenged them, it threw down the gauntlet to the entire combination movement.

The Standard Oil Company of New Jersey,⁹ the holding company of the oil trust, was prosecuted for being a combination in restraint of trade under the Sherman Act. As the case finally came before the Supreme Court, the Standard Oil Company of New Jersey was charged with having acquired a controlling interest in thirty-seven other corporations which had become subsidiary to it. The combination had acquired over 85 per cent of the petroleum products business of the country, although it did not have a natural monopoly of petroleum. The charges against the combination, as summarized

⁹ *Standard Oil Company of New Jersey v. the United States*, 221 U.S. 1-106 (1911).

by Chief Justice White in rendering the decision of the court, were these:

Rebates, preferences, and other discriminatory practices in favor of the combination by railroad companies; restraint and monopolization by control of pipe lines, and unfair practices against competing pipe lines; contracts with competitors in restraint of trade; unfair methods of competition, such as local price cutting at the points where necessary to suppress competition; espionage of the business of competitors, the operation of bogus independent companies, and payment of rebates on oil, with the like intent; the division of the United States into districts and the limiting of the operations of the various subsidiary corporations as to such districts so that competition in the sale of petroleum products between such corporations had been entirely destroyed. . . .¹⁰

In its decision the court held that the Standard Oil Company of New Jersey was in fact a combination in restraint of trade and a monopoly in violation of the Sherman Act; that it should therefore be dissolved by the transfer back to the stockholders of the thirty-seven subsidiary corporations of all stock given to the Standard Oil Company of New Jersey in exchange for its stock; that the officers of the Standard Oil Company of New Jersey should be prohibited from voting the stock of the subsidiary companies; and that the officers of the subsidiary companies should be prohibited from paying any dividends to the New Jersey holding company. The significance of the decision of the court, however, lies not in the fact that the Standard Oil combination was ordered dissolved (which was to have been expected, granted the correctness of the charges), but rather in the further fact that the Supreme Court in reaching its adverse conclusion applied the "rule of reason" to combinations in restraint of trade. Earlier decisions of the court, in applying the Sherman Act, had drawn no distinction between reasonable and unreasonable restraint of trade, it having been assumed that the Sherman Act applied to all combinations in restraint of trade, whether reasonable or unreasonable. Indeed, in the *Trans-Missouri Freight Association Case* ¹¹ of 1897 it was generally supposed that the court had specifically declared itself on this point when it included *all* restraint of trade under the prohibitions of the statute. In the present case the court declared that the Standard Oil Company of New Jersey was

¹⁰ 221 U.S. 42-43 (1911).

¹¹ *United States v. Trans-Missouri Freight Association*, 166 U.S. 290-374 (1897).

illegal, not merely because it was a combination in restraint of trade, but because it was a combination in *unreasonable* restraint of trade. The court apparently reversed the position taken fourteen years earlier in the Trans-Missouri Freight Association Case; this was certainly the contention of Justice Harlan, who filed the dissenting opinion in the Standard Oil Company Case. The court decision declared that *every* combination is not necessarily illegal. It seemed to imply that ultimately in any given case the court must decide whether a particular combination is an honest attempt to secure greater efficiency without tending to produce monopoly. If so, it involves only such restraint of trade as is reasonable; but if it be a combination intended to stifle competition, it is unreasonable and therefore illegal. Apparently, in reaching its decision the court construed section two of the Sherman Act—the monopoly section—as a limitation upon section one—the section prohibiting restraint of trade. The decision seems to say: not all restraint of trade, but only such restraint of trade as monopolizes or attempts to monopolize (that is, unreasonable restraint of trade), is prohibited by the law. As pointed out earlier in this chapter, this decision of the court, which the critics called “judicial legislation”, reintroduced into statute law the old common-law distinction between reasonable and unreasonable restraint of trade.

The case against the American Tobacco Company was essentially similar to the Standard Oil Company Case in both the bill of complaint and in the decision of the Supreme Court.¹²

United States Steel Corporation Case. The United States Steel Corporation is one of our most highly integrated businesses.¹³ It is not only a vertical but also a horizontal combination. The government brought suit against the company¹⁴ in the fall of 1911 charging it with undue restraint of trade and with being a monopoly. The Supreme Court's decision was not rendered until 1920. By a four-to-three decision, two of the judges not participating in the case, the government's bill of complaint was dismissed. The court held that whatever the purposes of the organizers of the United States Steel

¹² 221 U.S. 106-193 (1911).

¹³ Cf. Chapter VI, “Capitalistic Combinations”, p. 121.

¹⁴ *United States v. United States Steel Corporation*, 251 U.S. 417-466 (1920).

Corporation may have been, the corporation never had had and did not then have monopoly power. Therefore it did not come under the ban of the Sherman Act. The United States Steel Corporation, it was admitted, was a combination of commanding size, but mere bigness is not an offense under the law. It is only when a big business is guilty of monopolizing trade that it comes under the prohibition of the Sherman Act. The Steel Corporation was allowed to go its way.

The four cases just briefly reviewed illustrate (1) the initial failure in the application of the law to manufacturing combinations, in which no restraint of trade was shown (the Knight Case); (2) the application of the law to combinations of common carriers (the Northern Securities Company Case); (3) the prohibition of industrial combinations proved to be in unreasonable restraint of trade (the Standard Oil Company Case); and (4) failure to apply the act to combinations not proved to be in monopolistic restraint of trade (the United States Steel Corporation Case).

THE CLAYTON ANTI-TRUST ACT

After nearly twenty-five years of experience under the Sherman Act, and much acrimonious debate concerning its wisdom, Congress in 1914 supplemented it by passing the so-called Clayton Act, the subtitle of which reads "An act to supplement existing laws against unlawful restraints and monopolies, and for other purposes". While the Clayton Act is an omnibus measure covering a wide range of more or less related subjects in its twenty-six sections, its main trend is to prevent control by combination of so large a part of any industry as to lessen competition and tend to create monopoly. In spite of the ambiguity and evasiveness of some of the language of the act, Congress showed itself resolute in the desire to maintain competition. Among the more important provisions of the Clayton Act designed to help achieve these ends are prohibitions (1) of local price discriminations, (2) of tying clauses in contracts, and (3) of intercorporate stockholding and interlocking directorates, that lessen competition.¹⁵

¹⁵ Cf. Clayton Act, 38 U.S. Stat. 730, Sections 2, 3, 7, 8.

Price discriminations. Price discriminations, the effect of which is substantially to lessen competition or to create monopoly, are prohibited. It had been a favorite practice of the trusts temporarily to cut prices in given localities in order to crush an independent competitor. Such local price discriminations the Clayton Act intends to prohibit. The effectiveness of the prohibition is rendered somewhat questionable, however, by the provision that nothing contained in the act shall prevent "discrimination in price in the same or different communities made in good faith to meet competition". It is not clear how far trusts or independent manufacturers may go in meeting each other's prices and still be acting in good faith.

Tying contracts. A second trade practice which had grown up during the combination movement was the insertion of tying clauses in sale or lease contracts by which the buyer or lessee agreed not to use the goods of competitors in connection with the good he had bought or leased. The United Shoe Machinery Company, for instance, refused to lease (it never sold) its indispensable lasting machines to a shoe manufacturer unless he signed a contract binding himself also to use other machines of the company, such as the welting and stitching machines. These latter machines were also produced by other shoe machinery manufacturers. Although a shoe manufacturer could have bought or leased them on more favorable terms than those of the United Shoe Machinery Company, in practice he did not have this option. He needed a lasting machine, which was patented by the United Shoe Machinery Company and merely leased by the company to its customers. In order to get it, he had to agree to use no other competing shoe machinery. The A. B. Dick Company, manufacturers of patented rotary mimeographing machines, sold them only with the license restriction that the buyer must use in operating the machines only the stencils, ink, and other supplies furnished by the A. B. Dick Company. Such practices enabled companies to tie the use of non-patented or competitively produced commodities to the use of a patented commodity. The Clayton Act definitely prohibits tying clauses in contracts, under which commodities, whether patented or unpatented, are leased or sold on condition that the lessee or purchaser shall not use the goods of competitors, where the effect of such tying contracts is substantially to

lessen competition or to create monopoly in any line of commerce.

Intercorporate stockholding and interlocking directorates. The favorite device for the creation of capitalistic combinations was the holding company. The Clayton Act decisively reinforces the Sherman law prohibiting combinations in restraint of trade, when it declares:

That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce, where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition, or to restrain such commerce in any section or community, or tend to create a monopoly of any line of commerce.¹⁶

Never has there been more emphatic expression of the anti-monopoly spirit of the American people. A strict interpretation and enforcement of this section would have prevented any material growth of the combination movement after 1914. The section, however, closes with the clause: "Nothing contained in this section shall be held to affect or impair any right heretofore legally acquired." This seems to imply that any combination of the holding company type that had successfully run the gantlet of legislation and the courts prior to the passage of the Clayton Act may be left undisturbed.

The act also prohibits interlocking directorates of certain corporations, if "such corporations are or shall have been by virtue of their business and location of operation, competitors, so that elimination of competition by agreement between them would constitute a violation of any of the provisions of any of the antitrust laws."¹⁷

As far as the enforcement of the provisions of the Clayton Act is concerned, the Interstate Commerce Commission is responsible where they are applicable to railroads and other common carriers; the Federal Reserve Board where they are applicable to banks and trust companies; and the Federal Trade Commission where they are applicable to other corporations.

The Appalachian Coals, Inc., Case. When the Supreme Court of the United States in its decisions of the Standard Oil Company

¹⁶ Section 7 of the Clayton Anti-trust Act, 38 U.S. Statutes 730.

¹⁷ Section 8, Clayton Act, 38 U.S. Statutes 730.

and American Tobacco Company cases in 1911 proclaimed the "rule of reason" with reference to combinations, many professed to see a weakening of our anti-trust legislation. The ultimate response of Congress to this situation was the passage of the Clayton Act, which its advocates frankly asserted was intended to put teeth into the Sherman Act. Not quite twenty years after the Clayton amendment of the Sherman Act had become law, the Supreme Court rendered a decision in the case of *Appalachian Coals, Inc.*, which looks like a reaffirmation of the rule of reason applied to combinations.

One hundred thirty-seven producers of bituminous coal in the Appalachian territory of Virginia, West Virginia, Kentucky, and Tennessee had organized an exclusive selling agency known as *Appalachian Coals, Inc.* In return for a commission of 10 per cent of the gross selling price of the coal, this company agreed to sell at the best prices obtainable all the coal delivered to it by its principals, and to prorate the orders upon a stipulated basis, if all the coal produced could not be sold. The companies in the combination mined 11.96 per cent of all bituminous coal produced east of the Mississippi River in 1929, and their production in this same year was 64 per cent of all coal produced in Appalachian territory. The contract between the coal mine operators and their subsidiary, the selling agency, was made to expire April 1, 1935, but was renewable from year to year.

Suit was brought against *Appalachian Coals, Inc.*, on the grounds that it was a combination in restraint of interstate commerce in bituminous coal and an attempt to monopolize part of such commerce. The government contended that the plan violated the Sherman Anti-trust Act because it eliminated competition among the coal operators themselves and gave their selling agency power substantially to affect and control the price of bituminous coal in many interstate markets. The coal operators defended themselves by disclaiming any intention either to restrain or to monopolize interstate commerce. They argued that their selling agency did not have the power to fix the price of coal in any consuming market; that the price of coal would continue to be set in open competitive markets; and that their plan of promoting the sale of coal from Appalachian territory by better methods of distribution and the elimina-

tion of destructive trade practices would promote rather than restrain interstate commerce.

The United States District Court sustained the contention of the government. But when the case was appealed to the Supreme Court of the United States, the decree of the District Court was reversed and the bill of complaint was dismissed. The court took the position that in the case of *Appalachian Coals, Inc.*, there is "no intent or power to fix prices, abundant competitive opportunities will exist in all markets where defendants' coal is sold, and nothing has been shown to warrant the conclusion that defendants' plan will have an injurious effect upon competition in these markets".

But the special interest and importance of this case lie in an apparent reaffirmation of a liberalized interpretation of our anti-trust laws. The language of Chief Justice Hughes, who delivered the court's opinion, is strongly suggestive of the rule of reason in passing upon the legality of combinations. The restrictions of the Sherman Act, says the court,

call for vigilance in the detection and frustration of all efforts unduly to restrain the free course of interstate commerce, but they do not seek to establish a mere delusive liberty either by making impossible the normal and fair expansion of that commerce or the adoption of reasonable measures to protect it from injurious and destructive practices and to promote competition upon a sound basis. . . .

In applying this test, a close objective scrutiny of particular conditions and purposes is necessary in each case. Realities must dominate the judgment. The mere fact that the parties to an agreement eliminate competition between themselves is not enough to condemn it. . . . The question of the application of the statute is one of intent and effect, and is not to be determined by arbitrary assumptions. . . .

A coöperative enterprise, otherwise free from objection, which carries with it no monopolistic menace, is not to be condemned as an undue restraint merely because it may effect a change in market conditions, where the change would be in mitigation of recognized evils and would not impair, but rather foster, fair competitive opportunities. . . . The fact that the correction of abuses may tend to stabilize a business, or to produce fairer price levels, does not mean that the abuses should go uncorrected or that coöperative endeavor to correct them necessarily constitutes an unreasonable restraint of trade. The intelligent conduct of commerce through the acquisition of full information of all relevant facts may properly be sought by the coöperation of those engaged in trade, although stabilization of trade and more reasonable prices may be the result. . . . Putting an end to injurious practices, and the consequent improvement of the com-

petitive position of a group of producers, is not a less worthy aim and may be entirely consonant with the public interest, where the group must still meet effective competition in a fair market and neither seeks nor is able to effect a domination of prices.¹⁸

THE FEDERAL TRADE COMMISSION ACT

Contemporaneous with congressional discussion of the Clayton bill was the debate over the proposed establishment of the Federal Trade Commission. As a matter of fact the latter measure became a law (September 26, 1914) about three weeks before the former (October 15, 1914). The Federal Trade Commission consists of five members, appointed by the President and subject to ratification by the Senate. Each full-term appointment is for seven years. Not more than three of the five commissioners may belong to the same political party.

The primary function of the commission is *to prevent unfair methods of competition in commerce*. Section five of the act creating the Federal Trade Commission declares: "That unfair methods of competition in commerce are hereby declared unlawful. The commission is hereby empowered and directed to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the acts to regulate commerce, from using unfair methods of competition in commerce."¹⁹ To the extent that such unfair competition led to restraint of trade or to monopoly, it was already illegal under the Sherman Act and those guilty of it were subject to prosecution. The Federal Trade Commission, however, constitutes an additional agency not only for the correction, but also for the prevention of unfair competition. Unlike the courts, which must wait for some overt wrong before they can act, the commission can act in advance of wrong-doing by helping to build up high standards of competition. Certainly the commission can do much to check incipient attempts to restrain trade or to create monopoly. In exercising its powers and performing its duties with reference to the prevention of unfair competition, the commission is authorized to

¹⁸ *Appalachian Coals, Inc., et al. v. The United States of America*, 288 U.S. 344-378 (1933).

¹⁹ 36 U.S. Stat. 717.

institute proceedings, to conduct hearings, and to order offenders to cease and desist from such methods of competition. If the order is not obeyed, the commission may apply to any United States Circuit Court of Appeals having jurisdiction for the enforcement of its order. The courts have broad powers of review, but the findings of the commission as to the facts, if supported by testimony, are conclusive.

Along with the duty imposed upon the commission of preventing unfair competition go far-reaching *powers of investigation*. A few of the more important are the following. In the first place, the commission is empowered to gather information concerning, and to require general or special reports from, the corporations subject to its special control, with particular reference to the organization, business, conduct, practices, and management of such corporations and their relation to other corporations, partnerships, and individuals. Failure to comply with the requests of the commission subjects the offending parties to a fine; wilful falsification of data entails fine or imprisonment or both. The provision in the law of such penalties makes the Federal Trade Commission a real fact-finding body. Secondly, the commission also has the power "upon the direction of the President or either House of Congress to investigate and report the facts relating to any alleged violations of the anti-trust acts by any corporation".²⁰ Thirdly, in cases of such alleged violations of the anti-trust laws, the commission may upon the request of the Attorney-General make recommendations as to how offending corporations can readjust their trade policies so as to make them accord with the law. While the commission cannot give any combination an "immunity bath", it can suggest forms of economic reorganization that will render prosecution unlikely. Fourthly, the commission is also authorized, upon its own initiative or upon that of the Department of Justice, to investigate the way in which court decrees arising out of the violation of the anti-trust laws are being carried out.

The Federal Trade Commission has now been in existence for about twenty years. During the first half of that period it was largely occupied with investigations growing out of the World War, which naturally interfered with the performance of the main task. The

²⁰ Section 6 (d) of the Federal Trade Commission Act.

commission has proved itself a most useful agency in the government's attempt to prevent unfair competition. During the first fifteen years of its activity, it served 1,962 formal complaints charging unfair practices in competition. The most celebrated and spectacular of these complaints was that against the United States Steel Corporation in 1923. For many years the Steel Corporation had been quoting steel prices in terms of "Pittsburgh plus", i. e. the price at Pittsburgh plus the cost of transportation from Pittsburgh to the point of delivery. The base price was the same, no matter whether the steel was actually produced in and shipped from Pittsburgh, Gary, Duluth, or Birmingham, in all of which places the United States Steel Corporation maintained plants. Steel could not be bought at the mill; it could only be bought delivered at the point of destination at "Pittsburgh plus" prices. A purchaser of a ton of steel in Chicago paid the price of steel in Pittsburgh, say \$40, plus \$7.60, the freight charge from Pittsburgh to Chicago, even though the steel was manufactured in Chicago.²¹ The independent producers followed much the same price-fixing policy, disposing of their output at "Pittsburgh plus" prices in periods of heavy demand because of their ability to make relatively prompt deliveries, and doing little or no business in periods of light demand because of their inability to compete with the United States Steel Corporation. An organization of buyers of steel, known as the Western Consumers of Rolled Steel Products, entered complaint before the Federal Trade Commission against the "Pittsburgh plus" practice; a little later the case was taken up by the Attorneys-General of Illinois, Wisconsin, Minnesota, and Iowa, supported by a total of thirty-two States. The complaint was entered on the ground that the practice was discriminatory and suppressed competition. There was no discrimination by Pittsburgh mills, for all purchasers paid the same price for Pittsburgh steel, plus transportation costs from Pittsburgh to the point of delivery. The discrimination was by Chicago and other non-Pittsburgh mills, whether belonging to the United States Steel Corporation or to the independents, that charged prices in accordance with the "Pittsburgh plus" practice. "At Davenport, Iowa, for ex-

²¹ Freight rates are those of 1920 as quoted by J. R. Commons, "Delivered Price Practice in the Steel Market", *American Economic Review*, XIV (1924), 508.

ample", to quote Professor Commons, "the freight from Pittsburgh is \$9.50, and the freight from Chicago is \$3.40, so that, when the Chicago mills are selling to Chicago purchasers at \$47.60 (the Pittsburgh plus price at Chicago) they are selling the same steel to Davenport at \$49.50 and are then deducting the actual freight from Chicago to Davenport, leaving them only \$46.10 for the steel alone when delivered at Davenport as against \$47.60 when delivered in Chicago." ²² Chicago consumers of Chicago-made steel paid \$1.50 more per ton than Davenport consumers of Chicago steel delivered in Davenport. This was discrimination. The Federal Trade Commission, after prolonged deliberation, held that the "Pittsburgh plus" practice was unfair; that it caused discrimination and restraint of trade; and therefore ordered it discontinued. The United States Steel Corporation did not appeal to the courts, but accepted the decision of the commission.

In the attempt to prevent unfair methods of competition in commerce, the Federal Trade Commission has condemned such practices as misrepresentation in the sale of stock, misbranding of commodities, adulteration, and false statements in advertising.

COMBINATIONS UNDER THE NATIONAL INDUSTRIAL RECOVERY ACT

The fundamental purpose of the National Industrial Recovery Act of June 16, 1933, was to accelerate recovery by increasing employment and purchasing power. Industries were encouraged to draw up codes of fair competition, including particularly provisions concerning maximum hours and minimum wages. When approved by the President such codes became the standard of fair competition within the industry, such as the textile, steel, or motor industry. Violations of a sanctioned code were deemed "unfair competition" as defined by the Federal Trade Commission Act. The usual agency through which industries set up their codes was the trade association. The important sections of the act pertaining to industrial combinations are sections three and five, which in part read as follows:

Sec. 3. Upon the application to the President by one or more trade or industrial associations or groups, the President may approve a code or codes of fair competition for the trade or industry or subdivision thereof, repre-

²² *Op. cit.*, p. 512.

sented by the applicant or applicants, if the President finds (1) that such associations or groups impose no inequitable restrictions on admission to membership therein and are truly representative of such trades or industries or subdivisions thereof, and (2) that such code or codes are not designed to promote monopolies or to eliminate or oppress small enterprises and will not operate to discriminate against them, and will tend to effectuate the policy of this title: Provided, That such code or codes shall not permit monopolies or monopolistic practices.

Sec. 5. While this title is in effect . . . and for sixty days thereafter, any code, agreement, or license approved, prescribed, or issued and in effect under this title, and any action complying with the provisions thereof taken during such period, shall be exempt from the provisions of the antitrust laws of the United States.

The act did not repeal the anti-trust laws but under certain specified conditions temporarily suspended them. Persons or businesses operating under a prescribed code of fair competition, approved by the President, were exempted from the application of the anti-trust laws. This "immunity" was welcome to business and industry represented under the codes. With the adverse decision of the Supreme Court in the *Schechter Poultry Corporation Case* (May 28, 1935) under section three of the National Industrial Recovery Act the whole code-making authority collapsed.

PUBLIC POLICY TOWARD COMBINATIONS

Policy of suppression. Our public policy toward industrial combinations has been guided by the desire to maintain fair competition. This purpose is unmistakably revealed in the Sherman, Clayton, and Federal Trade Commission Acts. To this purpose we are still committed. Consequently, industrial combinations that restrict competition or tend to create monopoly are outside the pale of the law and subject to prosecution whenever the Department of Justice sees fit to act. Such an atmosphere chills and stunts, if it does not kill, the growth of monopolistic combinations. True it is that the large industrial combinations in this country arose subsequent to the passage of the Sherman Act. But the blame for this attaches not to the law but rather to the failure to enforce it promptly. Decisions of the Supreme Court, of which the cases cited earlier in this chapter are fair samples, have gone far to check the development of any new monopolistic combinations. The opinion is wide-

spread in this country that industrial monopolies are neither necessary nor inevitable; that they are for the most part the creatures of unfair methods of competition; that they have yet to prove themselves more efficient than large-scale competitive enterprises. This accounts for our policy of suppression. In the actual repression of industrial combinations, however, the government has been only partly successful. One reason for this has been that an industrial combination restricting competition or creating monopoly must be an accomplished fact before the government can hope to prosecute successfully.

Policy of prevention. While the government is continuing its policy of exterminating such monopolies as can be proved to exist, the past two decades have brought with them the beginnings of a policy of prevention. The Federal Trade Commission, as shown above, is an indispensable agency in the carrying-out of this policy and can be made increasingly useful in preventing monopoly and preserving fair competition. It has frequently been said that under our policy of suppressing monopolies and combinations in restraint of trade, as expressed in the law and interpreted by the courts, business men do not know where to draw the line between legitimate coöperation and unreasonable restraint of trade; that there is no way of telling in advance whether a given practice will meet with approval or disapproval; and that corporations have a right to know in advance of prosecution whether a given business practice is or is not in accordance with the law. The Federal Trade Commission, actually and even more potentially, can function as such a monitor. By repressing unfair methods of competition, the commission can prevent the formation of some monopolies. The policy of prevention is superior to the policy of destruction much as a prophylactic against disease is usually preferable to a major operation. To destroy an existing monopoly is not to undo the damage done to competing producers who have perished or to consumers who have suffered from high prices. To prevent the formation of monopoly is to attack the problem at its source and to offer adequate protection to all honest competitors.

Policy of regulation. Opposed to the view of those who would prevent what monopolies they can and destroy what they cannot

prevent is the view of those who would allow monopolies to exist but would regulate them in the public interest. This is the policy which, after some hesitation and many misgivings, we have adopted with reference to public utilities. It was not adopted, however, until after we had in many places tried the experiment of maintaining competition. The experiment proved not only unsuccessful but disastrous. Gradually both the futility and wastefulness of this procedure became evident and the more enlightened policy of regulation was adopted. Now there are those who claim that what we have done with public utilities we ought also to do with industrial monopolies. The two cases are very different, however, because the so-called public utilities are *natural* monopolies, while there is nothing natural or inevitable about monopoly in most industrial fields. Wherever private monopoly appears, there public control must develop. Monopoly necessitates public control over prices and service. The difficulties of regulating the prices, the quality of goods, and the service rendered by combinations, operating under conditions that are not naturally monopolistic, are so stupendous that it is small wonder that the government and the public should shrink from the undertaking. A competitive system, in which competition is really effective, has this great advantage over an economic system in which prices and service are regulated by the government: regulation is from within the system rather than super-imposed upon it from without, and the control is both more efficient and less costly. Our policy toward capitalistic combinations, then, may be said to include three forms: the suppression of monopoly and prevention of combinations in restraint of trade, wherever there is room for effective competition; the acceptance and control of monopoly wherever it is natural and inevitable; the maintenance of fair competition wherever possible. Although often weakly and ineffectively pursued, this policy has had, and still has, much more to commend it than to condemn it.

APPENDIX: TEXT OF THE SHERMAN ANTI-TRUST ACT

Sec. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or

with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any combination, or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

Sec. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney-General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

Sec. 5. Whenever it shall appear to the court before which any proceeding under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpoenas to that end may be served in any district by the marshal thereof.

Sec. 6. Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United

States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

Sec. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

Sec. 8. That the word "person" or "persons" whenever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

CHAPTER XXXIV

THE CONTROL OF PUBLIC UTILITIES

THE CASE FOR REGULATION OF THE PUBLIC UTILITIES

Government regulation of the public utilities is today an accepted fact. Even the capitalists and managers engaged in the business of furnishing the public with such services as transportation, communication, light, and power would hardly choose to go back to the days of unregulated competition with its "cut-throat" rivalries and incessant friction with the consuming public. What they want is intelligent and fair control by government rather than all freedom from regulation. The consumer of the services of the public utility companies, at the same time, finds government control indispensable for the adequate protection of his interests.

There was a time when the American people put their faith in competition as a force sufficiently effective to protect the interests of the public. Competition was expected to keep rates down and the quality of the service up. Competing public utility enterprises were encouraged upon the deliberate assumption that this was the best means of protecting the public. But unregulated competition proved unequal to the task. The forces making for some form of combination were irresistible where large gains were to be effected thereby, and such combination was usually at the expense of the public. Competition having proved ineffective in the public utility field, the only alternatives in safeguarding the interests of the public were either government regulation or government ownership. For the most part the option chosen in this country was government regulation of privately operated public utilities.

The monopolistic character of the public utilities. The chief reason compelling government regulation is the fact that the public utilities are inherently monopolies. An industry or business today

is properly described as a public utility not merely because it produces a commodity or service more or less essential to the convenience of the general public, but because its most successful operation is possible only under conditions of monopoly. The most common public utilities, indeed, are natural monopolies; their business characteristics are such as to render a multiplicity of competing plants and lines impracticable. Most city streets are not wide enough to accommodate more than one street railway system; what the communities want is one good one. To dig up the streets for more than one system of water mains or gas mains or electric light and power conduits would be not only an unmitigated public nuisance but also reckless extravagance. Many American communities still remember and some even now experience the inconvenience of more than one telephone system. In the case of the railroads there should be competition between traffic centers, but parallel competing lines do not serve the country nearly as well as a network of railways threading the entire territory. The necessity of preventing self-destructive competition, or the need of rendering efficient service to the public, have compelled the recognition of monopoly in the public utility field.¹ But unregulated private monopoly is intolerable in a free country. Consequently governments have either regulated or socialized the public utilities.

Governmental aid to the public utilities. The case for regulation of the public utilities, moreover, has been greatly strengthened by the historic fact that so many of the public service corporations have received concessions or direct aid from the government. The municipal utility corporations, including street railway, telephone, light, and power companies, have obtained the use of city streets in franchises, which, if the government desires, afford an easy means of control. For the railroads, the state has often exercised the right of eminent domain, whereby the property of private individuals, unwilling to sell, has been taken from them at an appraised valuation and conveyed to the railroads. Was such seeming favoritism on the part of the state exercised for the purpose of giving the railroads what they want in the conduct of their business? Superficially this is true, but in reality the condemnation of private property for the

¹ Cf. Chapter VI, "Capitalistic Combinations", p. 122.

use of a railroad is only undertaken because the construction of the road is deemed of public benefit. The use of the sovereign power of government on behalf of the railroads clearly defines their public status and obligations.

What is more, many of the public utilities, including the railroads, in particular, have been the beneficiaries of direct and indirect financial aid from the government. The United States government, for instance, granted the Union Pacific, the Central Pacific, and four other corporations, which undertook the construction of the first railroad through to the Pacific coast, twenty square miles of land for every mile of railroad construction—thirty-three million acres in all. It is estimated that as a result of the land grant policy of the government, federal and State, the railways came into possession of about 131,000,000 acres of land—almost one fifteenth of the entire area of continental United States.²

The credit of the government, too, was used in helping to construct the railroads. The Pacific railways just mentioned borrowed nearly sixty-five millions of dollars from the United States government. More than a generation passed before any of it was repaid. The government never did get full payment for the principal and interest advanced, although the final settlements were more favorable than for a long time seemed probable. Local governments also offered generous financial aid to the railways within their jurisdiction; estimates placed the amount at two to three hundred millions of dollars. Cash bonuses and valuable tax-exemption privileges were granted by some governmental units. All this governmental aid—doubtless the largest ever given any private enterprise anywhere—was extended in the belief that good transportation agencies would hasten the settlement of the country, would establish outlets to markets, and would make for the prosperity of all. When abuses of the public arose in railway practice, the historic fact that extravagantly generous aid had been given the railways in the days of their youth was a moving consideration in establishing effective government control.

² The railroads received lands roughly equivalent to the combined areas of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Ohio, and Indiana.

As far as the courts are concerned, the case for government regulation of railroads in the United States was first clearly stated in the celebrated case of *Munn v. Illinois*. When various State legislatures, coping with certain abuses in railway practice, sought to fix rates, the railways challenged their right to do so on the ground "that the owner of property is entitled to a reasonable compensation for its use, even though it be clothed with a public interest and that what is reasonable is a judicial and not a legislative question." In this decision, however, the Supreme Court of the United States clearly affirmed the right of a State to regulate "properties burdened with a public interest". The court said: "When one devotes his property to a use in which the public has an interest, he in effect grants to the public an interest in that use, and must submit to be controlled by the public for the common good to the extent of the interest he has thus created."³

PURPOSE IN REGULATION OF THE PUBLIC UTILITIES

The chief objectives to be attained in the government's regulation of the public utilities are *fair prices* to the public and adequate service. The public utilities are inherently monopolies. The consumer, therefore, is without the usual alternative of patronizing some other producer rendering the same service, if he finds the rates of a particular public service corporation too high to suit him. Nor can he usually dispense with the service, because the public utility companies supply services or commodities that are more or less essential. Consequently his best guarantee against excessive rates lies in effective regulation by the government.

What is true of rates is also true of service. Where there is absence of competition, other motives may not suffice to ensure the consumer the quantity, quality, and continuity of service to which he is entitled. Regulation by the government is the only effective means of assuring adequate service in the case of private monopolies rendering an indispensable service.

Although of lesser importance than the two considerations just

³ *Munn v. Illinois*, 94 U.S. 113 (1876). Case pertained to public grain warehouses but was applied also to railways.

mentioned, the establishment of regulatory bodies makes it easy for an aggrieved buyer of the service of a public utility to lodge complaint and secure justice, if his complaint has merit. While the courts are always open to anyone having cause for action, this mode of procedure is impracticable for the ordinary individual seeking redress in petty cases.

RAILWAY REGULATION: SPECIFIC COMPLAINTS AGAINST THE RAILWAYS

Since the railways, whether judged by the capital invested in them, the number of laborers they employ, or the nature of their service to the economic life of the people, are more important than any other public utility or combination of utilities, most of the discussion that follows will pertain to the problem of railroad regulation. Great as the indebtedness of the railways to the public has been, certain flagrant abuses appeared early in the practice of some roads. When criticism arose, the usual answer was that in view of the fact that the roads had been built, the public had received full equivalent for the aid granted the railway corporations. The operation of the roads, it was held, though serving a public purpose, was primarily a private matter. But this answer did not satisfy the public. One complaint after another arose until ultimately the number and seriousness of the charges against the railroads were so overwhelming that effective governmental regulation was established.

High rates. It is not surprising, when one recalls how much railway business is done under conditions of monopoly, that one of the earliest and loudest complaints against the railways was that they were charging unreasonably high rates. Railways have to meet competition at traffic centers; but at places where there is neither the competition of other railroads nor that of other means of transportation, they enjoy monopoly privileges. Not unnaturally, therefore, they based their rates upon the well-known principle of "charging what the traffic will bear". This meant that at some places rates were low in order to get business, and at others as high as they could be placed without killing business or driving it away. The objection,

naturally, came from the high-rate communities. The railways for a long time remained indifferent to the complaint. Usually there was nothing in their charters concerning the maximum rates to be charged, and it took a long time to develop the necessary legal regulation of rates. In the meantime some communities suffered from high rates—even if not in silence or without company.

Discrimination between places. The principle of basing rates upon what the traffic would bear led to various forms of discrimination. One of the most serious of these was discrimination between places. It frequently happened that railroads charged no more for a long haul than a short haul. Sometimes indeed, it happened that they charged more for the short haul than the long haul, even when the short haul was contained within the long haul. At one time, for instance, the cost of shipping goods from Chicago to Spokane was approximately 80 per cent higher than the cost to ship these same goods through Spokane to Seattle, 300 miles farther west.⁴ William Z. Ripley points out that Wichita, Kansas, not unnaturally complained because the rate of shipping cotton goods from New York to Wichita by way of Galveston, Texas, was \$1.36, while the rate to Kansas City, Missouri, by the same route but 225 miles farther, was only ninety-three cents.⁵

Why such discriminations? The only plausible reasons the railroads could allege were the necessity of meeting the competition of other carriers, by rail or water, at the traffic junction points, and the better terminal facilities of some places, which made them lower-cost shipping points. Such reasons, however, were not conclusive to incensed shippers or freight consignees living at the non-competitive points. In consequence they demanded that the government should correct what injustice existed. While many instances of place discrimination are justifiable, there was no escape from the fact that some of it was a masquerade to benefit favored individuals and communities.

Discrimination between individuals. The most reprehensible and deeply resented form of discrimination between individuals

⁴ U.S. Senate Document, Fifty-ninth Congress, Number 243 (1906), p. 2914.

⁵ *Railroads: Rates and Regulations* (New York: Longmans, Green and Company, 1912), p. 216.

was that commonly known as rebating. In this practice favored shippers, though nominally paying the same rates as all other shippers, actually received a rebate from the railway companies on their shipments. This system of rebating enabled the favored shipper to overbid his competitors in buying goods (cattle or grain, for instance), or to underbid them in selling goods. It enabled railroads by secretly favoring some aggressive shipper temporarily to steal business away from some competing road. A conspicuous past beneficiary of such arrangements was the old Standard Oil Company.

There was nothing wrong in the mere granting of a rebate; the wrong lay in granting it to some and not to others. It often enabled favored shippers to crush their competitors. The success of the system depended upon its secrecy. The object was to get traffic away from a competing carrier. If the shroud of secrecy had been removed, the carrier granting rebates might as well have engaged in open rate warfare with all competing roads. To escape the calcium light of publicity the practice of rebating was often cleverly camouflaged. William Z. Ripley offers some ingenious examples.⁶ Spur track railway companies were sometimes organized in order to share the earnings of the carrier.

In Hutchinson, Kansas, for example, were salt works having a capacity of some 6,000 barrels a day. Two railways were available for shipments. A new company was incorporated, all its stock being held by the salt works owners, which constructed sidings to both railroad lines. The spur track was less than a mile long and cost only about \$8,000 to build. But the company was chartered as the Hutchinson & Arkansas River Railroad. Its officers were the owners of the salt mills. It owned neither engines nor cars. Yet it entered into a traffic agreement with the Atchison road for a division of the through rate to many important points, its share being about twenty-five per cent.⁷

Favored shippers were sometimes given the benefit of dark "midnight tariffs". They were secretly informed that beginning with midnight of a specified day a new and lower tariff of freight charges would be in effect. Twenty-four hours later, perhaps, the old tariff was restored. Anyone shipping on the specified date of course re-

⁶ Cf. *Railroads: Rates and Regulation* (New York: Longmans, Green and Company, 1912), pp. 195-209.

⁷ *Ibid.*, p. 195.

ceived the benefit of the lower rates. But buried in the mass of freight schedules constantly being filed, no one but an "insider" was in a position to profit materially by the temporary reduction in rates.

Still another elusive form of rebating arose out of the fact that some large shippers were also sellers of railway supplies. To get and to hold their business as shippers, it was easy to offer them an inducement in the form of prices above the market for all supplies sold the railroad. In this way no direct rebate was given, but indirectly the same end was accomplished.

The issuance of passes to certain favored persons was another form of individual discrimination. It was at one time very easy for members of legislative bodies, executive officers of government, and other leaders of the public to obtain free passes for themselves, and often for their families and friends.

Discrimination between commodities. A third form of discrimination growing out of the practice of charging what the traffic will bear is unfair discrimination between commodities. It is entirely fair that different rates shall be charged for different commodities. Heavy, bulky goods like coal cannot carry the same freight rate per ton-mile that shippers can afford to pay on light goods like silk. Freight classifications are based on this sound idea, and when properly made are in the interests not only of the railways but also of the public.⁸ But the opportunities for abuse are numerous. To place one commodity in a given freight class bearing a low rate and to place a competing commodity in another class bearing a higher rate was to discriminate in favor of the former and against the latter.

The pooling of earnings or traffic. "Cut-throat" competition between the railroads sometimes led to the formulation of agreements to put a stop to such ruinous competition. The favorite device was the pool, a form of agreement in which the previously competing roads pledged themselves to divide earnings or traffic in accordance with some stipulated ratio. The "Chicago-Omaha" pool, previously described as entered into by the Chicago Northwestern, Burlington, and Rock Island railroads, was a conspicuous example.⁹ Such pooling arrangements when made and put into operation without any

⁸ Cf. p. 387.

⁹ Cf. p. 128-129.

regulation by government usually proved prejudicial to the interests of the public, both as shippers and as passengers.

RAILWAY REGULATION: CONTROLLING LEGISLATION

The foregoing counts in the indictment of railroad practice—high rates, the long and short haul abuse, rebating, discrimination between commodities, and pooling agreements—slowly but surely led to governmental regulation. After a score of years of spirited discussion, the federal government undertook the regulation of the railroads in the public interest under the Interstate Commerce Act of 1887. While this act of Congress did not provide for very effective regulation of the railroads, it was greatly strengthened in later years and so may properly be said to have inaugurated a new era in the history of the railroads in this country. What the act did that has proved of supreme importance was the creation of the Interstate Commerce Commission to regulate interstate railway traffic. The act also laid down the principle that rates must be just and reasonable; that there must be no undue preferences between places and between persons; and that the practice of pooling earnings or traffic must be abandoned. The commission was given power to investigate complaints against the railroads and to issue orders to the carriers to desist from any practices found to be illegal. For the enforcement of its orders, however, the commission had to depend upon the courts. This lamed, if it did not paralyze, the arm of the commission. As public opinion with reference to the railroads became better informed and ripened into more positive convictions, a long series of amendments was passed by Congress. These amendments of 1903, 1906, 1910, 1913, 1914, 1920, and 1933 all had as their purpose the strengthening of the Interstate Commerce Act of 1887.

The Elkins Act of 1903 is remembered chiefly as an effective effort “to put teeth” into the rebating prohibition of the Interstate Commerce Act. Although the practice was forbidden in the original act, so many loopholes were found that the law did not really get hold of the offenders. The Elkins Act imposed heavy fines upon any railroad corporation found guilty of granting lower rates to any shipper than those contained in the published tariff applicable to all.

With the passage of the Hepburn Act in 1906 the scope of the regulatory powers of the Interstate Commerce Commission was extended to include pipe-lines, express companies, and sleeping-car companies. The act prohibited the issue of passes to anyone except to a person belonging to a specified group. It prohibited a carrier from transporting for sale any commodity in which the carrier had a proprietary interest, lumber and lumber products alone excepted. It conferred power upon the commission, when upon complaint it found a rate "unjust or unreasonable, or unjustly discriminatory, or unduly preferential or prejudicial", to determine and fix the maximum rate which the carrier might charge. Prior to such authorization, about all the commission could do concerning unjust rates was to make an investigation and file a report. The railways could afford to disregard the orders of the commission, because the United States Supreme Court had held that prescribing the rates to be charged was a legislative power, which Congress had not conferred upon the commission.¹⁰ The Hepburn Act made the Interstate Commerce Commission a really strong commission; effective federal regulation of the railways dates from its passage in 1906.

What the Elkins Act had done to abolish rebating, the Mann-Elkins Act of 1910 did in eliminating the long and short haul abuse. It unequivocally provides that no greater charge shall be made for a short haul than for a long haul over the same line or route and in the same direction, except upon authorization of the commission. The act also made the commission's power over rates still more effective by authorizing it to suspend for a time rate increases proposed by the railroads, until investigation by the commission should establish their reasonableness.

What constitutes a reasonable rate depends both upon what the public can afford to pay and upon what the railroads can afford to take. The railroads are interested in getting a fair return on their invested capital as well as in meeting ordinary operating expenses. The public had no way of knowing whether the returns were fair or not, because the valuation of the invested capital was unknown. To help remedy this situation, Congress in 1913 passed the Adamson-

¹⁰ *Interstate Commerce Commission v. Cincinnati, New Orleans and Texas Pacific Railway Company*, 167 U.S. 479 (1897).

La Follette Valuation Act. Under this measure the Interstate Commerce Commission was directed to ascertain the capital value of the railways—a task upon which the commission spent about fifteen years. The commission, through its Bureau of Valuation, made an inventory of all the physical property of the railroads. It tried to ascertain for each the original cost, the cost of reproduction new, the cost of reproduction minus depreciation, and “other values and elements of value, if any”. The original cost could not be determined either completely or accurately; in many instances “original costs” had to be reconstructed from known price data at the time of original construction, and thus they represented estimates projected into the past. The valuation activities of the commission centered on ascertaining what it would cost to reproduce the railway properties new and what their cost of reproduction new less depreciation would be. Primary valuations were based upon the cost of materials and labor prevailing in 1914, or upon the average net prices paid during the five-year period ending in 1914. For railway carriers in existence on December 31, 1932, and using “spot prices” as of June 1, 1933, the Interstate Commerce Commission computed cost of reproduction new of the railway property other than land as \$23,742,000,000; cost of reproduction less depreciation, \$17,599,000,000. Original cost was estimated at \$22,860,000,000. The value of land and rights as of June 1, 1933, amounting to \$3,032,000,000 should be added to the three preceding figures for a more complete valuation on each of the three bases.¹¹

In valuation discussions a very interesting controversy developed as to which basis of valuation should be given primary weight in fixing the general level of rates. Since the price level fluctuated widely in the twenty-year period following the enactment of the valuation law, reproduction costs showed sharp changes. At the time the Valuation Act was passed in 1913 the “liberals” favored reproduction costs as a basis of rate-making; the railways clung to original costs. The World War interrupted the valuation work and temporarily obscured the controversy. The price level in the mean-

¹¹ Cf. *Forty-seventh Annual Report of the Interstate Commerce Commission*, December 31, 1933, pp. 73, 76. Cf. also other references to this subject in Chapter V, “The Business Organization of Production”, pp. 114–115, and Chapter XV, “Transportation”, p. 390.

time more than doubled. When valuation questions again commanded attention after the War, the "liberals" were found championing original costs, particularly the prudent investment theory, and the railways espoused reproduction costs. The "liberals" wanted the lowest valuation figures, the railways the highest, on which to base the general level of rates. With the post-war fall in prices, particularly in the depression of the thirties, another shift in position seemed imminent. Both sides were saved the embarrassment (if any) of another change, because economic conditions became so bad that the question of railway property valuation as a rate base had academic interest only. What the public could afford to pay fell far short of a reasonable return on any valuation base.

During the long controversy, however, the Supreme Court had rendered an important decision in the case of the St. Louis and O'Fallon Railway, a small railway that would have remained unknown to most people except for this "test case" decision of the court. In this decision, so far as the principle of valuation is concerned, the court held that present-day costs of reproduction must be given due consideration in arriving at a valuation, without, however, indicating what weight to give such reproduction costs. The Interstate Commerce Commission in its valuation work had adopted a compromise method by calculating reproduction costs as of 1914, adding the actual costs of extensions and betterments since 1914, and subtracting a sum for depreciation.

The Clayton Act of 1914 refers only incidentally to the railroads, but its prohibition of interlocking directorates and of intercorporate stockholding, the effect of which is to lessen competition, is important.

The Esch-Cummins Act of 1920 in a number of ways marked an important departure from previous regulatory policy. For the first time Congress declared what should be regarded as a fair rate of return. It directed the Interstate Commerce Commission to divide the country into rate districts and to initiate such rates that carriers in each district (not each individual road, necessarily) would be able to earn an aggregate amount that would represent a fair return upon the aggregate value of their railway property. It specified that from March 1, 1920 (the date the railroads were returned to their owners

after twenty-six months of operation by the government), to March 1, 1922, such fair rate of return would be $5\frac{1}{2}$ per cent, with an additional $\frac{1}{2}$ of 1 per cent to provide for unproductive improvements. After the latter date the commission was empowered to change the fair rate of return, without however impairing the principle that the railways should be allowed to earn, if they could, a fair return on their invested capital. The commission exercised its power, and on March 1, 1922, the standard rate of return was reduced to $5\frac{3}{4}$ per cent. Since the rate of return must be applied to some figure as a base, the commission was obliged to fix a tentative valuation of all the railroads of the country without waiting for the completion of its own valuation work. The valuation announced in 1920 for rate-making purposes was \$18,900,000,000.

A second new principle embodied in the Esch-Cummins Act was the so-called recapture of earnings. If any efficient carrier earned from its transportation business an income in excess of the standard rate of return on its valuation, one half of such surplus might be retained by the carrier as a reserve, but the other half was payable to the government. The surplus paid the government was to be used as a revolving fund to aid weaker railroads in providing necessary transportation facilities. Naturally some railroads were quick to challenge the constitutionality of this recapture clause. The United States Supreme Court, however, in the *Dayton Goose Creek* case declared it valid.¹² Comparatively little was actually paid to the government under this act, although much larger sums were payable. The economic distress of the railways during most of the time following the enactment of the law made it inexpedient for the government to press the collection of its claims. Finally, the entire provision of the law for the recapture of earnings was repealed, and the repeal given retroactive effect, by the Emergency Railroad Transportation Act of 1933.

Still another radical departure of the Esch-Cummins Act from traditional regulatory policy was the permission granted the railroads, subject to the approval of the commission, to effect consolidation of their properties into a limited number of railway systems.

¹² *Dayton Goose Creek Railway Company v. United States Interstate Commerce Commission*, 263 U.S. 456 (1924).

The commission has announced a tentative grouping of the railways of the country into nineteen systems, but so far no important consolidation has actually taken place. How revolutionary this proposal is becomes apparent when one recalls that the original Act to Regulate Interstate Commerce forbade the existence of pools among the railroads, and that holding companies like the Northern Securities Company were prosecuted as being contrary to the public interest because they were in restraint of trade.¹³ Whatever consolidations may occur under the act will be voluntary, not compulsory. It will be a complete reversal of the public attitude toward the railways, if at some time in the near future such consolidations are made mandatory, not optional. The key to this changing public opinion is furnished by the effectiveness of governmental control.

The most recent amendment of the Act to Regulate Interstate Commerce is the Emergency Transportation Act of 1933. In some respects this act abandoned some of the ground previously taken in the regulation of the railways, and in other respects it broke new ground. The most sweeping change made was the abandonment of the rule that in setting rates cognizance should be taken of what constitutes a reasonable return on the fair valuation of railway property. For it there is substituted the general rule that rates must be "just and reasonable", and Section 205 of the Emergency Transportation Act further directs

In the exercise of its power to prescribe just and reasonable rates, the Commission shall give due consideration, among other factors, to the effect of rates on the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers, under honest, economical and efficient management, to provide such service.

The recapture of earnings provision of the previous law was repealed, and the sums collected under it were returned to the railways. Railway holding companies, established for the purpose of effecting consolidations, were brought under the control of the commission, thus making sure that whatever consolidations occur

¹³ Cf. pp. 821-822.

are in accordance with the commission's general plan of consolidation.

The noteworthy new feature of the act, continued by legislation in 1935, was the creation of the office of Federal Coördinator of Transportation. His primary duties are to attempt to eliminate unnecessary duplication of railway service, to prevent wastes in operation as far as possible, and after investigation to report to the Interstate Commerce Commission a plan for the comprehensive improvement of all forms of transportation. Something has been accomplished in the elimination of waste, but in the aggregate no great economies have as yet proved possible. Orders of the coördinator may be appealed to the commission. In his reports the coördinator (Mr. Joseph B. Eastman, long a member of the Interstate Commerce Commission) recommended a continuation of the present policy of government control of privately owned transportation agencies. Although known to favor public ownership and operation as the ultimate solution of the railway problem, he does not believe that public opinion is at present ripe for the change and considers it unwise for the government to assume the financial burden at present. He favors a plan of continuous coördination of railway service under government control. "It is clear that under present conditions, with the rapid development of competitive means of transport, railroad methods must be changed radically, and in the direction of coöperation, collective action, and coördination," is the conclusion of his second report. "Half measures and compromises will not do. If the railway managements perceive this and are able to subordinate their individual interests to the general good of the country, they can make a success of the plan recommended, and the government can give them much help."

RAILWAY REGULATION: POWERS OF THE INTERSTATE COMMERCE COMMISSION

It has become increasingly evident throughout the preceding recital of the more important steps taken by the federal government in regulating the railroads that the indispensable administrative

agency for the protection of the public is the Interstate Commerce Commission. From a body of five members, as originally constituted in 1887, the commission has been enlarged until now it consists of eleven members. Continuity of membership is provided for by overlapping terms of seven years for each of the commissioners, who are appointed by the President with the consent of the Senate. From powers that were largely investigative and monitory—and even so, frequently greatly weakened by the courts—it has come to exercise powers that are as fully regulatory as any controlling body could wish. Some idea of the magnitude of the task imposed upon the commission may be gathered from the fact that it was necessary to build up an organization of about 2,000 employees, experts of many kinds together with their assistants, to discharge the duties delegated to it by Congress in the successive acts to regulate interstate commerce. The commission is the arm of Congress in handling interstate commerce.

Under the federal Constitution, of course, the regulatory powers of Congress are restricted to interstate commerce. The regulation of intrastate commerce is left to the several States. Some of the States exercised their powers long before the federal government assumed its responsibilities in the matter. Today, every State in the Union, except Delaware, has its own railway or public utility commission. The railways are sometimes restive under this dual control, preferring exclusive federal regulation. One of their spokesmen has said that their status is analogous to the well-known situation of a pet chameleon, which when put on a piece of green cloth obligingly turned green, on a piece of red cloth turned red, and on a piece of yellow cloth turned yellow. In an ill-advised moment, however, someone experimented by putting the little lizard on a piece of Scotch plaid, with the result that the chameleon burst all to pieces trying to live up to expectations. The railways often like to say that somehow or other they managed to do what was expected of them when they had only the State legislatures to obey. When the Interstate Commerce Commission was created, they still managed to get along. But today when Congress, forty-eight State legislatures, the Interstate Commerce Commission, and public utility commissions in every State except Delaware all participate in regulating

them, the plaid has become too variegated and they bid fair to burst in the attempt to make good.¹⁴ It is altogether unlikely, however, that the States will very readily surrender any of their prerogatives in the matter of railway control. A dual system of regulation seems inevitable in this country for an indefinite time to come.

Railroad regulation by the federal government, as the preceding discussion has shown, did not come to pass in a day or a year. Once established, however, it has proved substantial, comprehensive, and effective. Its success has materially helped in changing the spirit of some railway executives from "the public be damned" (a sentiment once expressed by Cornelius Vanderbilt) to "the public be pleased". At the same time, because it has given the public a sense of security against possible abuses by the railroads, it has helped to overcome bitterness and to develop greater open-mindedness and sympathetic interest on the part of the public in finding the wisest solutions of railway problems. The success of railroad regulation by the federal government promises to continue. Should it fail, it will not be for lack of the necessary authority.

How extensive and intensive the present regulatory functions of the Interstate Commerce Commission are may be somewhat clarified by a classified summary of its more important powers under the Act of 1887 to Regulate Interstate Commerce as amended during the succeeding fifty years.

As to scope. The present jurisdiction of the Interstate Commerce Commission includes not only the steam railways, to which its regulation was originally restricted, but also electric railways, express companies, sleeping-car companies, pipe-lines, private car lines together with switching and terminal properties, motor buses and trucks—all to the extent that they do an interstate business. In the main the powers of the commission are coextensive with the interstate business of common carriers operating by rail or by combination of rail and water. Traffic by water exclusively and commercial aviation are as yet outside the pale of the commission's jurisdiction.

The interstate business of telephone and telegraph companies

¹⁴ Cf. Blewett Lee, general solicitor of the Illinois Central Railroad, "The Next Thing in Railway Regulation", *Outlook*, CXIII (1916), 1049-1052.

from 1910 to 1934 was also within the range of the commission's regulatory activities. The Communications Act (June 19, 1934) created the Federal Communications Commission and entrusted it with the responsibility of regulating the interstate and foreign business of the telephone, telegraph, and radio companies. Powers previously vested in the Interstate Commerce Commission and the Federal Radio Commission are now lodged in the Federal Communications Commission of seven members.

As to rates. The Interstate Commerce Commission has power to establish rates that are just and reasonable. Such rates must be fair both to the public and to the railway companies rendering the service. The specific rates to be charged for various classes of freight are proposed by the railroads but are subject to approval by the commission as to their reasonableness.

The commission has the power to fix both maximum and minimum rates upon either its own initiative or the complaint of a shipper. To fix maximum rates means to protect the shipper; to establish minimum rates means to protect the railroads against possible cut-throat competition.

Schedules of freight rates proposed by any carrier may be suspended by the commission for a limited period of time. If investigation establishes their reasonableness, they may be allowed; if not, a definite rate may be prescribed.

Copies of freight rate schedules and passenger fares must be filed with the commission, and no carrier is allowed to depart from these published rates.

As to discriminations. Interstate commerce law directs the commission to prohibit unfair discriminations of all sorts. Accordingly, the granting of rebates renders both shipper and carrier liable to punishment. Free passes are prohibited except to groups of persons specified in the law. Unfair discriminations between places are prohibited; no greater charge may be made for a shorter haul than for a longer haul, the shorter being included within the longer, unless the commission has given specific authorization for such discrimination.

As to combinations. While pooling was prohibited by the origi-

nal Act to Regulate Interstate Commerce, a recent amendment of this act, the Esch-Cummins Act of 1920, authorizes the commission to "prepare and adopt a plan for the consolidation of the railway properties of the continental United States into a limited number of systems". Such consolidations are subject to the limitation that competition between consolidated systems shall be preserved as fully as possible. Under the earlier Clayton Act (1914) intercorporate stockholding and interlocking directorates, the effect of which is to lessen competition, are prohibited. The commission is charged with the administration of this provision so far as it pertains to the carriers of interstate commerce.

As to accounts and finance. The commission has power to specify the form of all accounts, and to require uniform accounts—a most important power, because regulation, if it is to be intelligent, must be based upon accurate and reliable data. The carriers are required to submit regularly statements of their revenues and expenses, and the commission is authorized to inspect all their accounts and records. Such procedure results in publicity of railway operations, which has been indispensable to the commission, particularly in the performance of its rate-regulating duties.

The commission has exclusive control over the issue of railway securities. No bond or stock issue may be floated without the approval of the commission, but its consent in no way obligates the government as to the securities so issued. The commission must be convinced that the proposed issue is for the best interests of the railroad in the discharge of its duties as a common carrier and is also compatible with the public interest.

As to service. The commission is vested with both ordinary and extraordinary powers over railway service. It may prescribe the amount of railway service. It may control the movement of equipment. It may require the purchase of new equipment. It may order the common use of rolling stock and terminals by a number of roads. No new line may be built or old line be abandoned without its permission. In the event of a national emergency, such as war, it may direct that certain traffic shall have priority in transportation.

RAILWAY REGULATION: POWERS OF STATE
PUBLIC UTILITY COMMISSIONS

Long before the Interstate Commerce Commission was created, some of the States had already established a semblance of control over the railways within their respective territories. Today all the States exercise such control. The regulatory powers of each State, however, are constitutionally restricted to commerce confined within its own borders. No very serious attempt was made by any State to regulate its railways until about 1870. *Laissez faire* conceptions of government were one important deterring influence. For another thing, the States were more interested in getting railroads built than in controlling them. Since that time, however, direct statutory control and commission control of the railroads have become general. The early State commissions were of the advisory type, weak in regulatory powers; the later commissions, particularly those created since 1897, are of the mandatory type, strong in their powers to regulate. The State commissions consist of three to seven members, three fourths of the States having three-member commissions. In about half of the States they are appointive officers; in the rest, they are directly elected by the people.

The powers of the State commissions differ widely. The stronger of these commissions have powers that on a more limited scale are comparable to the powers of the Interstate Commerce Commission. The supervision of rates, particularly the adjustment of intrastate rates to interstate rates, the prohibition of discriminations, the regulation of accounts, and control over service, including safety and sanitation, are the usual functions discharged by these commissions.

While the jurisdiction of the State and federal commissions now seems clearly enough defined, important disputes have arisen and doubtless will continue to arise as long as our dual system of control continues. Local intrastate rates, for instance, established by a State commission, may have important bearings upon interstate commerce. In such a case, who shall determine the rates to be charged, the State commission or the Interstate Commerce Commission? The Supreme Court of the United States answered this

question. In the so-called Shreveport Rate Case ¹⁵ Louisiana shippers had complained that certain rates established by the Texas Railway Commission on Texas intrastate traffic were proving discriminatory against traffic originating in Shreveport, Louisiana, and destined for Texas markets; that the low intrastate rates rendered competition by outside industries paying the high interstate rates impossible; that Texas, by endeavoring to secure commercial advantages for herself in her own markets, was in reality forcing a downward revision of interstate rates in order that outside industries might compete, and thus was in effect regulating interstate commerce. The Supreme Court fully sustained the power of the Interstate Commerce Commission to set reasonable rates, and the commission directed the railroads to eliminate the discriminatory rates, even though this meant violating the orders of the Texas Railway Commission. Subsequently, in the Esch-Cummins Act, the principle of the Shreveport case was enacted into law; where rates made by any State discriminate against interstate commerce, the rates established by the Interstate Commerce Commission to remove such discrimination shall prevail, "the law of any state or the decision or order of any state authority to the contrary notwithstanding". Commerce knows no State lines, and governmental control must be adjusted accordingly.

The position of the court in the Shreveport Case (1914) and the statutory declaration of the Esch-Cummins Act (1920) were reaffirmed by the United States Supreme Court in the Wisconsin Passenger Fare Case (1922).¹⁶ The Wisconsin legislature had placed a two-cent per mile passenger fare law upon its statute books in 1907. Years later the Interstate Commerce Commission had declared a charge of 3.6 cents per mile reasonable for interstate passenger transportation. Could Wisconsin be permitted in 1922 to enforce its low passenger fare law in the face of much higher interstate rates that had been declared reasonable? Again the court denied the right of a State to enforce intrastate rates that were prejudicial to interstate rates. The court held that such a low rate would discriminate

¹⁵ 234 U.S. 342 (1914).

¹⁶ Railroad Commission of Wisconsin *v.* Chicago, Burlington & Quincy Railway Company, 257 U.S. 563.

against interstate movements and, if passengers in Wisconsin were carried at a loss, would place heavier burdens upon other traffic of the railways to make up the deficit.

While there has been a steady extension of federal regulation of the railways at the expense of the State governments, this has been inevitable and even desirable in view of the interdependence of the parts of our transportation system. The growth and success of federal regulation, however, do not imply that State control is no longer necessary. There are still numerous railway problems of local concern with which the State commissions are best qualified to cope. As for the past, the State regulatory bodies have scored many notable achievements of benefit both to the public and to the railways.

REGULATION OF PUBLIC UTILITIES OTHER THAN THE RAILWAYS

The spectacular and prolonged contest for effective control of the railways has overshadowed the struggle effectively to control other public utilities as well. To the extent that their business may properly be classified as interstate commerce, some of these other public utilities have been brought under the regulatory powers of the Interstate Commerce Commission. This is notably true of the interstate business of motor bus and truck companies. In the main, however, what control there is over public utilities other than the railways is exercised by the State public utility commissions. Telephone and telegraph companies, street and interurban electric railways, electric light and power companies, gas companies, and, less frequently, water companies are subject to control by the State commissions. Control of municipally owned and operated utilities is not as usual as control over private companies.

The problem of controlling the public utilities has been steadily growing in importance. Primarily this has been due to the rapid growth of their business and the increasing dependence of the public upon the services rendered by them. Secondarily it has been due to the tendency of the public utilities to consolidate into larger and more formidable units, capable at times of ignoring both the

consuming public and the government. How much the services of the public utilities have become part of our standard of living can be realized, perhaps, if we imagine ourselves suddenly deprived of all of our common carriers, of both telephone and telegraph, of water-works, of gas and electric light and power. Judged by any standard—capital invested in them, volume of business done, income derived from them, people employed by them—the public utilities constitute one of the country's major industries and one which directly and intimately affects the well-being of all the people. It is estimated that in 1930 70 per cent of the American population lived in electrically connected housing units.¹⁷ While candles and kerosene and gas are still being used for artificial illumination, there is no real substitute for electricity. Its convenience, cleanliness, power, and cost make it the ideal source of illumination. When an industry becomes so indispensable to the comfort of the public, and when in the interests of economy its service must be rendered under monopolistic conditions, it is inevitable that public control should develop.

The need of increasingly effective government control has also been evidenced by the consolidation into larger corporate organizations of one-time independent local utilities. This movement made particularly rapid progress during the decade following the World War. By 1932, it is estimated, 75 per cent of the business of supplying electric light, heat, and power to the people of the United States was in the hands of ten large holding companies.¹⁸ Through the superposition of holding company upon holding company, and the device of interlocking directorates, a small number of financial groups came to dominate the electric light and power business of the country. Conspicuous among these financial interests have been or are such groups as J. P. Morgan and Company, Bonbright & Company, Drexel & Company, Henry L. Doherty & Company, H. M. Byllesby & Company, Stone & Webster, Inc., the General Electric Company—and the Insulls. When an industry grows to

¹⁷ Eliot Jones and Truman C. Bigham, *Principles of Public Utilities* (New York: The Macmillan Company, 1931), p. 44.

¹⁸ James C. Bonbright and Gardiner C. Means, *The Holding Company* (New York: McGraw-Hill Book Company, Inc., 1932), p. 91.

such commanding size as did some of the loose-jointed "super-power" companies, the public welfare must be protected through more stringent government control.

The chief purpose in the regulation of all public utilities is to assure the public adequate service at reasonable prices. Wherever and whenever public utility service is unsatisfactory, some customer is likely to lodge complaint. It is the duty of the regulatory bodies not only to pass upon the merits of such complaints, but also to order satisfactory service upon their own initiative. Public utility service may be considered reasonably adequate if both the quality and regularity of the service meet the needs of the consuming public. In discharging their duty to regulate service, commissions must pass upon the quality of the service rendered as judged by both prevailing and possible standards, and may authorize both the extension and abandonment of service lines.

The problem of establishing reasonable prices is much more difficult. On a smaller scale, it is the same type of problem already discussed in connection with the regulation of railroad rates.¹⁹ Public utility rates must be low enough to encourage public consumption of the utility furnished and, at the same time, high enough to yield a fair return on the investment. In order that a commission may pass upon the reasonableness of a proposed street railway fare or electric light charge per kilowatt hour, for example, it must ascertain the following facts: the annual operating expenses of the company in rendering the desired public service; a fair allowance for the annual depreciation of the company's plant; the value, on some accepted principle of valuation, of the company's investment; what constitutes a fair rate of return on an investment in the particular street railway or electric light and power enterprise. With these facts known, the commission, after estimating the revenue to be derived from the proposed rates, can at least tentatively answer the question: Is the proposed rate a reasonable charge, fair to both the consuming public and the public service corporation? Regulatory bodies are called upon to protect the interests of both the consuming and the investing public.

¹⁹ Cf. discussion of establishing both the general level of rates and of fixing specific rates in Chapter XV, "Transportation", pp. 385-391.

Regulation of public utilities other than the railways largely rests with the State public utility commissions (Delaware alone is without such a regulatory body), because the business of these utilities is predominantly local and intrastate. When one recalls that some of these commissions are elected rather than appointed, that the terms of office are often too short to attract competent men from other work, that the personnel of the commissions is constantly changing, that their powers are restricted, that their financial resources and the technical staffs they can recruit are limited and subject to constant loss, the amazing thing is that forty-seven State public utility commissions have accomplished what they have in controlling the public utilities. Control over service has proved fairly easy and satisfactory. Control over rates has been more difficult to achieve because of the intricate problems involved.

The handicaps of the State public utility commissions in exercising effective control are partly due to lack of jurisdiction and necessary authority. Hardly any of the commissions has power over the holding companies which manage the local operating companies. Moreover, if a holding or an operating company in a field like electric light and power does an interstate business, and at the same time the Interstate Commerce Commission or the Federal Power Commission has no control, it will escape effective control except through the coöperation of the States, which is not always easily secured. Certain of the State commissions even lack authority to regulate some of the utilities, like electric light and power, or must share their powers with municipal authorities. In general, the commissions cannot initiate proceedings looking to the revision of rates but must act upon the complaint of interested parties. But greater than the handicap of inadequate jurisdiction and power are the limitations upon the activities of the commissions attributable to inadequate appropriations. The salaries of the commissioners themselves and of the technical experts employed by them are usually too small to attract and hold some of the most competent and desirable men in the State service. It has been common experience for the commissions to lose some of their keenest men to the service of the public utilities themselves. This "nibbling" process has often had an unfortunate effect upon the

efficiency of the commissions. It takes able, fearless, and experienced men in the service of the government to match wits with the legal and other expert talent the private corporations can assemble. Inadequate funds to work with have meant technical and administrative staffs unequal to the task imposed upon them. Some States, like Wisconsin, have sought to meet the problem of financial resources for regulatory work by assessing the costs of specific rate investigations against the public utilities involved.

The most serious attempt on the part of the federal government to regulate the public utilities subject to its jurisdiction came with the passage of the Public Utility Act of 1935. Its theme is that the public utility holding company and its subsidiaries are "affected with a national public interest". Since State regulation cannot be effective, federal regulation is held to be necessary.

The act provides that public utility holding companies must register with the Securities and Exchange Commission. The purpose of such registration is to secure detailed financial information concerning the corporate structure, connections, and operations of each holding company. The Securities and Exchange Commission has power to regulate security sales by registered holding companies and their subsidiaries. It may grant or withhold its approval of such sales. It may pass upon the appropriateness of any proposed capital issue, considering in its judgment the corporation's present financial structure and earnings. The commission is directed to examine the structure of public utility holding companies to ascertain whether it can be simplified and, if so, to order such simplification. After January 1, 1938, the commission is instructed to require each holding company and each subsidiary to make sure that the system of which it is a part constitutes a "single integrated system". Such a system is defined as a system not so large as "to impair the advantages of localized management, efficient operation and the effectiveness of regulation". The superposition of more than one holding company upon another is prohibited; holding companies beyond the second degree must be abolished. This is the hotly contested "modified death sentence" of public utility holding companies. Important exceptions are allowed, however, and the future of such companies is still much in doubt.

THE ALTERNATIVE OF GOVERNMENT OWNERSHIP AND OPERATION
OF THE PUBLIC UTILITIES

While it is true that regulation of the public utilities is today an accepted fact, this does not mean that it meets with the unqualified approval of all. Some critics, not without a measure of truth, find fault with the partisanship, provincialism, and politics that have often been revealed in the action of State regulatory bodies. Others are convinced that regulation is only a temporizing measure; that ultimately the state must own and operate all public utilities in the public interest. One thing is clear to all who recognize the peculiar relations between public utility enterprise and the consuming public, namely, the only alternatives worth considering are effective government regulation and some form of government ownership.

Government ownership and operation of the public utilities are far less common in the United States than in Europe. What government ownership we have is almost wholly restricted to the local utilities. Water-works are very generally municipally owned; in 1929, 77 per cent of the water-works systems of the United States were owned and operated by local governments.²⁰ Next in order of importance among the publicly owned utilities are electric light and power plants, over 52 per cent of which were municipally owned in 1932.²¹ Only a very small percentage of the gas plants and the street railway systems are publicly owned. Private ownership has been steadily maintained in the railways, telephone, and telegraph. We had government operation, but not ownership, of our entire railway system as a necessary war measure from December 28, 1917, to March 1, 1920. By operating all the railways of the country as a single system the government was able to make them function more efficiently in transporting troops and the extraordinary shipments of goods necessitated by the war. It was a costly venture, because government operation involved a deficit of nearly two billions of dollars, but economy is not a prime consideration

²⁰ Eliot Jones and Truman C. Bigham, *Principles of Public Utilities* (New York: The Macmillan Company, 1931), p. 725.

²¹ United States Department of Commerce, Bureau of Census, *Census of Electrical Industries, Central Electric Light and Power Stations*, 1932, p. 18.

during war, and the costliness of a war-time venture is not a convincing argument against government ownership. The United States government also operated the telephone and telegraph business of the country as a war-time necessity, but only for a year beginning August 1, 1918. The one important nationally owned public utility in the United States is of course the postal system, which is also a public enterprise everywhere else. The building of dams at Muscle Shoals in Alabama, at Norris Dam in Tennessee, at Boulder Dam in Arizona, and on the Columbia River in Oregon mark the entrance of the United States government into the business of producing hydro-electric power—"as a by-product".

Government ownership and operation of nationally important as well as of local utilities have had their longest history in Europe. More than one half of all European railways, including the whole or a major part of the railways of Austria, Belgium, Bulgaria, Czecho-Slovakia, Germany, Hungary, Italy, Poland, Rumania, Switzerland, and Russia are government-owned.²² The telegraph and telephone business is as a rule operated by the government. Whether messages be sent by mail or by wire, the government regards the communication business as a natural monopoly which it should own and operate in the public interest. In Great Britain and on the Continent municipal ownership of local utilities is common. In Germany even prior to the war the field of such municipalization included not only the public utilities of water, light, and transportation, but also milk distribution and slaughterhouses in some municipalities. The revolutionary political changes that have occurred in the governments of so many European countries since the war have greatly stimulated the socialization of the public utilities as well as of other enterprises.

Canada has two great railway systems, one of which (the Canadian

²² The German railways, long operated by the provincial governments, have since 1924 been operated by a corporation created by the government for the purpose. In accordance with the Dawes Plan for paying German reparations, this corporation assumed the burden of carrying and amortizing a debt of eleven billions of marks. This arrangement was considered equitable because the previous indebtedness of the railways had been wiped out by the depreciation of the mark. French railways, now mostly privately owned and operated, may under the terms of their charters, unless their concessions are renewed, become the property of the nation at various dates between 1950 and 1960.

Pacific) is privately owned and operated, while the other (the Canadian National) is a government enterprise. The best-known Canadian experiment, however, in government ownership is the highly successful Hydro-Electric Power Commission of Ontario. Created by the Province of Ontario and aided by the loan of provincial funds, this commission has developed the electric power resources of the Niagara River into the greatest single electric power system in the world. As a result of the availability of the Niagara and the large-scale generation and distribution of its electric energy, electric power is furnished to the people of Ontario at amazingly low rates per kilowatt hour.

The argument as to whether the merits of public or private ownership of any or all public utilities outweigh its disadvantages has proved highly controversial. So far the weight of the argument has at times been on one and again on the other side, depending upon prevailing conditions. There is no universally applicable conclusion to be drawn from the argument. In the main, the argument itself turns on three considerations: relative costs, the adequacy and efficiency of service, and the exclusion or intrusion of politics in operating the public utilities. Proponents of government ownership insist that with the elimination of the private capitalist the prices charged consumers can be materially lower. In the long run the contention is not without merit. In the short run, the consumer's expectations concerning lower rates have usually proved illusions. The reason is simple. The government must still pay interest and allow for profits. Unless the government expropriates the present owners, government ownership usually means the assumption by the government of any existing indebtedness of the utility, or at least of such percentage thereof as represents fair value in the judgment of some impartial tribunal. The equity of the stockholders, if valuation shows that there is a real equity, is commonly also acquired through issuing bonds of the government enterprise in exchange for the stock. Until all these bonds, and any additional issues for other purposes, are retired, the government must continue to pay interest. As far as profits are concerned, to the extent that they represent a payment for socially necessary risk-taking, and so long as risk-taking continues to characterize public

utility enterprise, the government will have to charge consumers (or taxpayers) enough to cover losses sustained from any unsuccessful risk-taking. Whatever reductions in cost develop, as a result of government ownership, arise not through the elimination of all interest and profits, but through possible reductions in interest rates and the volume of profits, and through other economies of operation. If government enterprise were substituted for private initiative in the public utility-field, and if it proved at least equally efficient, it would be possible, from the point of view of taxpayers, to save the present cost of government regulation.

Upon the issue of adequate and efficient service the advocates of public and of private ownership clash sharply. There is no valid reason why both public and private managements cannot be highly efficient. There is no gainsaying the fact that there have been numerous instances of incompetent and inefficient management of both types of enterprise. On the whole, private initiative lured on by the hope of profits is apt to prove somewhat more venturesome in making experiments that may ultimately lead to better service. It is for this reason that some authorities have held that a public utility should not be socialized until it has reached its economic maturity and is past the stage of necessary and constant experimentation to discover the best and most economical ways of rendering its services. While the profits motive for rendering acceptable service is lacking in public enterprise, there are compensating substitutes. Employees may be anxious to retain their jobs. The management may be eager to make a record and to win community approbation. Civic pride may spur men on to do their best.

Although politics *can* be kept out of the business of operating the public utilities, the temptation to mix politics and business is admittedly one of the biggest handicaps of government ownership. The question always is, *Will* politics be excluded? Our oldest governmentally operated public utility, the postal system, has never been wholly free from the hampering influence of politics. Politics in the conduct of a business enterprise breeds inefficiency. When its employees, be they "higher-ups" or men in subordinate positions, are selected because they are deserving Democrats or worthy Republicans rather than on the basis of their capacity and training

for the available positions, inefficiency in the functioning of the organization is almost sure to develop. Political appointees are not readily amenable to ordinary business and industrial discipline. Their jobs depend on the past and prospective mood of voters. But in reply to the argument that politics may have an enervating effect upon the efficiency and discipline of the personnel, champions of public ownership caustically ask: Is the intrusion of politics into the operation of governmentally owned public utilities any worse than the intrusion of privately owned public utilities into politics? If there is some risk of introducing the spoils system under government ownership, have we not witnessed wholesale corruption as a result of the efforts of private corporations to secure selfish concessions and favors? The rejoinder ignores the issue. The people should not be asked to choose between the spoils system in the public utilities and the corruption of public officials by concession-seeking private corporations. Neither is necessary; there are other possible choices.

Experience, including statistically measurable results as to cost of service, offers no easy, invariable answer to the question: Is government ownership of the public utilities preferable to their private ownership under government control? The answer may be different for different communities, and for the same community at different times. At a given time and place it may favor public ownership for some and private ownership for other public utilities. For the success of government ownership much depends upon the degree of maturity of the industry, the ability of the government to operate the utility, and the ripeness of the people for the change. The *sine qua non* for successful government ownership and operation anywhere lies in the ideals and traditions, the ability and integrity of those serving the public. The fact that in most European countries the public service has offered men more of an opportunity for a career than here is no little responsible for the greater extent and success of government ownership in Europe than in the United States.

CHAPTER XXXV
THE CONTROL OF INDUSTRY FOR THE
PROTECTION OF LABOR

PHILOSOPHY OF LABOR LEGISLATION

The purpose in the control of industry for the protection of labor is well expressed by a motto of the American Association for Labor Legislation: "The Conservation of the Human Resources of the Nation". The legal sanction for most of this legislation by the American States has been found in their police power, that rather indefinite power to provide for the general public welfare. Because our federal government is a government of delegated powers (all powers not specifically delegated to the federal government are reserved to the several States), it has had to find justification for its own industrial legislation in powers specifically conferred upon it, such as the powers of taxation and of regulating interstate commerce. Both the reserved police power of the States and the delegated powers of the federal government, however, have been used to achieve the same end, namely, to provide for the public welfare. In practice, moreover, the courts have used the principle of the police power in passing upon the constitutionality of both State and federal legislation. Accordingly, in speaking of the police power there is authority to use the term, as Commons and Andrews do, "to imply all the powers of government, whether of police, taxation, or interstate commerce, in so far as they are used to justify that indefinite extension of power to abridge liberty or property without compensation for some newly recognized public purpose".¹

The police power of the state, thus broadly defined, has been used in the field of labor legislation to accomplish two chief ends:

¹ John R. Commons and John B. Andrews, *Principles of Labor Legislation* (New York: Harper & Brothers, 1927), p. 17.

the protection of the weaker members of society and the safeguarding of future generations. Both of these purposes have been recognized as being of public benefit. The laborer's relative weakness in bargaining has led to legislation regulating the number of hours of work, the minimum wage that can be paid to women, and workmen's compensation in the event of accidents. The ignorance or indifference of workers has made safety and health legislation necessary. Child labor legislation and some measures pertaining to women have been inspired by the desire to safeguard the health of the future generation.

LEGAL DIFFICULTIES IN PROCURING PROTECTIVE LEGISLATION FOR LABOR

Attempts to control industry for the protection of labor have encountered some formidable legal difficulties. Perhaps chief among these is the division of power between State and federal governments. Child labor legislation, for instance, has twice been declared unconstitutional by the Supreme Court of the United States on the ground that Congress had exceeded the powers conferred upon it by the Constitution. Under our dual system of government, Congress has in some instances lacked the requisite power to pass protective labor legislation and individual States have hesitated to act alone on account of the fear that other States, permitting lower standards, might gain a decided advantage in interstate trade.

Some forms of labor legislation have been invalidated by the constitutional provision, incorporated in both the fifth and fourteenth amendments to the federal Constitution, declaring that no person shall be "deprived of life, liberty, or property, without due process of law". Every student of American history knows that this provision was first written into our so-called "Bill of Rights" as a safeguard against the confiscation of property. Instances of such confiscation on the part of unscrupulous officials were fresh in the minds of the American colonists. The provision, however, has become a great bulwark for private property rights. The first workmen's compensation acts, for example, were declared unconstitutional by the supreme courts of a number of States, because the

courts held that to require an employer to compensate an injured workingman for an accident for which the employer was not responsible was to deprive the employer of property "without due process of law".²

The constitutional provision that there shall be no interference with freedom of private contract has proved another legal barrier to the establishment of control over industry for the protection of labor. The first article of the federal Constitution declares that no State shall pass any "law impairing the obligation of contracts". The first Illinois eight-hour law for women working in factories was declared invalid by the Supreme Court of that State on the ground that it represented interference with freedom of private contract.³ To limit the number of hours that a woman might work in factories was held to deprive her of a valuable property right, namely, that of selling her services as a laborer on any terms that she saw fit. The fourteenth amendment to the federal Constitution was also cited in support of this position: "No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States." It should be noted, however, that later both the Illinois Supreme Court and other courts upheld the constitutionality of laws regulating the hours of women on the grounds of public health and welfare.

Still another legal barrier to the exercise of control over industry for the protection of labor was the provision against class legislation. The fourteenth amendment prohibits any State from denying "to any person within its jurisdiction the equal protection of the laws". It has often been argued that a given form of labor legislation was discriminating, and therefore class legislation. It has been held that such laws involved the exercise of the sovereign power of the government to serve a private rather than a public purpose, which is the essence of class legislation. It was not until the celebrated case of *Holden v. Hardy*, decided by the Supreme Court of the United States in 1898,⁴ that it was clearly established that the police power of the State might be used to protect the health of workers, be-

² *Ives v. South Buffalo Railway Company*, 201 N. Y. 271, 94 N. E. 431 (1911).

³ *Ritchie v. People*, 155 Ill. 96, 40 N. E. 454 (1895).

⁴ 169 U.S. 366. The case involved the constitutionality of a law reducing the hours of men working in underground mines to eight.

cause such protection was of public benefit. Moreover, the court held that a law limiting the hours that men may work was not class legislation, because wherever there is inequality of bargaining power there the public interest may warrant the State in interfering for the protection of the weaker party.

The legal doctrines just cited have hindered but not prevented control over industry for the protection of labor. Gradually legislatures and courts have come to recognize that the exercise of the police power of the State for the protection of the weaker parties to an agreement, where bargaining power is unequal, serves a public purpose; that such legislation is neither discriminatory class legislation in that it deprives others of "the equal protection of the laws" nor an abridgment of the individual citizen's privileges or immunities. The protection of labor has been the common goal both of private initiative and of public action. Both the organized labor movement and legislative bodies have sought to limit working hours and otherwise to safeguard working conditions so as to ensure the worker both a decent job and a chance to live.

LEGISLATION CONCERNING HOURS OF WORK

Fatigue as a basis for such legislation. The earliest widespread attempt to control industry by means of legislation for the protection of labor took the form of laws regulating hours of work. The fight for such legislation turned on two basic facts: the menace to health and efficiency of excessively long hours, and the need for leisure as an indispensable condition for normal family life, healthful recreation, and intelligent citizenship. In the campaign for legislative restrictions upon hours it is the danger to the health of the worker and indirectly of the public that has been chiefly emphasized.

Modern industry tends greatly to intensify fatigue, with results that are evil both individually and socially considered. Among the chief sources of intensified fatigue in modern industry are overtime, speed and monotony of work, domination of mechanical rhythm over the natural rhythm of the organism, and the noise of machinery.

Overtime. When machine industry was first established, the owners of industrial establishments thought it necessary to run their machines just as long each day as working conditions permitted. The machines represented a large capital outlay, and when not in operation it seemed to their owners that they constituted a dead investment. Consequently, twelve- to fourteen-hour working days were common, and even sixteen-hour working days were not unknown. Men, women, and children worked from sunrise until sunset, which in England often meant that in the spring and summer months they began work at five or six o'clock in the morning and worked until seven, eight, or nine o'clock at night, with only a brief intermission for dinner. The fatigue which such long hours of machine labor involved can readily be imagined; fortunately the great masses of workers no longer need experience it.

Speed and monotony of work. While excessively long hours, such as those that characterized the textile industry in the early days of the industrial revolution, are now almost unknown, the speed at which modern machines are driven, and the monotony resulting from high specialization, are other sources of intensified fatigue. The modern workman is a specialist, driven at high speed by the machines he operates.

Thus, in the making of hinges a woman lifts a half-formed hinge, places it in the bending machine and quickly withdraws her hand, and repeats this series of movements at the rate of 50 times a minute, or 30,000 times a day. The tops of tin cans are cut by pressing the lever of a foot press 40 times a minute, 24,000 times a day. In the telephone service an operator can receive, answer and make the proper connections for from 200 to 300 calls in an hour; in weaving one woman must supervise 16 to 24 looms, ever watchful that they are running properly; in sewing a single girl watches intently the 12 jumping needles of her power machine; in the making of women's clothing by modern machinery one operator in an hour will tuck 250 yards of lawn, another will hem 400 yards of voile, another will make 1,000 buttonholes, and still another will sew on 800 buttons; in the manufacture of candy one employee will wrap 9,000 caramels in a day; and in a cigar factory one man will bunch 2,000 stogies. An expert can insert in one day the eyelets into 4,000 shoes; another can trim the superfluous leather from the uppers of 5,200 shoes. A machine-made shoe in the process of manufacture is said to pass through the hands of no less than 100 workers.⁵

⁵ Quoted by Felix Frankfurter and Josephine Goldmark, *The Case for the Shorter Work Day* (reprinted by National Consumers' League, 1915), I, 204.

Such speeding-up makes large production possible, but it also intensifies fatigue. Is it any wonder, with the endless repetition of the same simple operation performed at high speed, that human spirits should sometimes rebel against the dull monotony of their daily grind? The fact that the masses of workers do not rebel, because they become habituated to their tasks and incapable of anything else, does not change the physically and mentally enervating effects of their work.

Domination of the machine over man's natural rhythm. Fatigue in industry has been further intensified because the machine has come to dominate the natural rhythm of the human organism. It is not always appreciated that men, as well as machines, work rhythmically. Our common rhythmic heritage is seen in man's fondness for singing and dancing; in the chanting of sailors as they haul; in the rhythmic swing of marching soldiers; in the beat of the cobbler's hammer and the blacksmith's sledge; in the rhythmic swing of the housemaid's broom. Indeed, even the Greek or Ethiopian who shines our shoes works better when he works rhythmically.

"The reason why rhythm makes work easier as well as more enjoyable", says Josephine Goldmark, "is that in any given tempo, each effort is followed by a corresponding rest. There is perfect balance of swing and recovery, rise and fall, exertion and repose. . . . If such a balance could be permanently established in work, fatigue could never occur. Such a condition exists in the physiological rhythm of the heart and respiratory muscles, which function unceasingly through life, alternating work and rest. . . . Thus we are physiologically attuned to rhythm."⁶

The danger of highly speeded machine work lies in the fact that man's own natural swing or rhythmic tendency is made completely subordinate to the speed of the machine. The machine sets the pace. Whatever man's natural tempo, he must struggle to keep up. Fatigue is the inevitable result. Men and women are everywhere early consigned to the industrial scrap-heap. Hours of labor in many non-industrial employments are longer than the hours in factories, and yet the persons concerned may not become as fatigued as the factory workers. The difference lies in the fact that

⁶ *Fatigue and Efficiency*, 3d ed. (New York: Russell Sage Foundation, 1912), p. 81.

the non-industrial worker sets his own pace and works in accord with his own natural rhythm.

The noise of machinery. A further source of intensified fatigue is found in the noise of machinery. Machines of different construction and operated at different speeds produce a great variety of vibrations resulting in the production of much noise. What we call the roar of machinery has a fatiguing effect. To dismiss the subject with the remark that the workers get used to it is not to deny the fatiguing effects of the noise. Noise is always distracting. An outsider stepping into many a modern factory finds it difficult to understand how any work can be done under such conditions. Work is done, as a matter of fact, because the workers have learned to concentrate, but this concentration or voluntary application to the job hastens the fatigue of the organism.

Results of fatigue. Excessively long hours under modern industrial conditions are the chief source of fatigue of the worker. Many careful studies have established the fact that fatigue is prejudicial to efficiency, to health, to morals, and to the future generation.⁷ The surest and most direct measurement of the worker's fatigue is his changing output. Fatigue lowers the efficiency of the worker as to both quantity and quality of output; it increases the amount of "spoiled work" and the number of accidents.⁸ Fatigue predisposes workers, as well as everyone else, to disease, because it lowers the individual's powers of resistance. Tired workers are not only susceptible to the peculiar disease hazards of their own industry, but also to such general diseases as pneumonia and tuberculosis. Daily congregated in large numbers in our factories, overtired workers are a constant disease danger to one another and to the general public. Fatigue is also detrimental to good morals.

⁷ Cf. *Final Report of the British Health of Munition Workers' Committee* (Reprinted by United States Bureau of Labor Statistics as Bulletin 249, February, 1919); and *The Case for the Shorter Work Day* cited above.

⁸ Statistics gathered by the Wisconsin Industrial Commission show that the number of accidents rises during successive hours of work after any period of rest, except during the closing hour of any "run", when counteracting forces are at work. Cf. Industrial Commission of Wisconsin, *Report on Industrial Accidents* (1915), p. 16. Cf. also United States Bureau of Labor Statistics, *Causes and Prevention of Accidents in Iron and Steel Industry, 1910-1919*, Bulletin 298, p. 190; *Accidents and Accident Prevention*, Bulletin 256 (Nov., 1919).

"The dangers attendant upon excessive hours are shown by the moral degeneration which results from over-fatigue. Laxity of moral fiber follows physical debility. After excessive labor, the over-taxed worker is left stupefied or responds most readily to coarse pleasures and excitements."⁹ Tired people often crave some extraordinary stimulus (not infrequently a stimulant) as a welcome relief to jaded nerves. In the case of working women, fatigue may prove decidedly injurious to the future generation, for the children of overworked mothers cannot be expected to get as good a start in life as they might if their mothers were not working under such conditions of excessive strain.

Need of leisure, as a basis for legislation controlling hours. The need for legislation restricting working hours, however, is based not merely upon the intensification of the fatigue of the human organism under modern working conditions, but also upon the worker's right to leisure. Man is something more than an intelligent machine for the most efficient production of wealth. Not merely his physical, but also his mental and moral, welfare is a matter of supreme importance both to him and to society. Long hours not merely sap physical vitality, they also prevent further education, limit the possibilities for recreation, interfere with family life, and render it next to impossible for the workingman to participate in community affairs. The intelligent use of leisure time is a *sine qua non* for the attainment of these ends.

Spreading work, as a basis for the restriction of hours. During the great depression of the thirties a third idea for the legislative restriction of hours gained prominence, namely, restricting hours so as to distribute work among those regularly employed in order to provide jobs for the largest number of persons. One of the objectives of the National Industrial Recovery Act and Administration was to accelerate recovery by fixing the maximum hours of work and thus increasing employment. At the same time through the establishment of minimum wages it was hoped to increase the aggregate purchasing power of labor.

The movement for the shorter working day, then, has been

⁹ Felix Frankfurter and Josephine Goldmark, *The Case for the Shorter Work Day* (1915), I, 404.

based upon the need of protecting the health of the worker, of enabling him to enjoy some leisure time, and of spreading work as a means of increasing employment. Two roads lead to this goal: labor unionism and legislation. Both have been followed.

Scope and extent of legislation concerning hours of work. In the United States it was the Boston machinist, Ira Steward, more than anyone else, who based the demand for the eight-hour day upon the solid foundation of the desirability of a high standard of living for the workingman and chose legislation as the shorter route to his objective. The International Union of Machinists and Blacksmiths, of which Steward was a leading member, in 1863 adopted a resolution containing the words, "Resolved, that from east to west, from north to south, the most important change to us as workingmen, to which all else is subordinate, is a permanent reduction to *eight* of the hours exacted for each day's work." With this achievement, Steward at once launched a public movement for the establishment by law of a universal eight-hour working day. In his agitation he had "to convince workingmen that wages would not suffer with the reduction of hours; and to show employers that the higher standard of living would create an increased demand for all commodities, and hence would not injure the employer's interests."¹⁰ Steward assumed that the eight-hour day would result in increased production, out of which the higher wages could be paid.

Steward's panacea for the improvement of the lot of the workingman failed of adoption. It is true that both the federal government and some States actually passed eight-hour laws. But the federal eight-hour law of 1868, which provided that "eight hours shall constitute a day's work for all laborers, workmen, and mechanics who may be employed by or on behalf of the government of the United States", actually neither reduced the hours of any large number of government employees (the act did not prohibit overtime agreements) nor led to the general adoption of the eight-hour day in private employments, as had been the hope of its sponsors. The early State laws that were passed proved non-

¹⁰ J. R. Commons and J. B. Andrews, *Documentary History of American Industrial Society* (Cleveland, 1910), IX, 277-278.

enforceable. Gradually the workers' faith in the legislative method of procuring the eight-hour day was undermined, and they turned to the labor-union method of collective bargaining. Until the World War period, progress by this method also was slow and halting; since that time it has been greatly accelerated.

Some measure of control by law over the length of the working day has been steadily maintained, and ever since the launching of the movement by Steward more than sixty years ago substantial progress has been made. Legal control has been extended over the hours of work, first of children and women and then of men, because there has been a growing recognition of the fact that such control served a public purpose. By the beginning of 1936 only five States¹¹ had failed to place some restriction upon either the hours per day or per week that a woman might be permitted to work for wages. A fair number of States had established either the eight-hour day or the forty-eight-hour week. The majority had set a weekly maximum of fifty-four hours.

In the case of men the courts have been much slower in granting the constitutionality of legislation restricting their working hours. The obvious health dangers of long hours to working mothers and prospective mothers led the courts, after some reverses, to sanction the exercise of the police power of the States on behalf of women. The exercise of similar powers on behalf of men was neither undertaken as early nor sanctioned as readily, because the public benefits of such legislation seemed more indirect and remote. The general public, as well as legislatures and courts, was slow in awaking to the need of such control.

As was to be expected, the first limitation placed upon the working hours of men was in connection with public work, where the right of the government to control conditions was undisputed. Not only the federal government but a majority of the States, as well as numerous cities, have established eight-hour working days for employees.

In railroad transportation where overtired workers run great risks and are such an obvious menace to the public safety, the federal

¹¹ Alabama, Florida, Indiana, Iowa, and West Virginia. Indiana prohibited night work in manufacture between 10 P.M. and 6 A.M.

government and more than half the States have passed laws limiting the hours of work. The nature of the railway industry precludes a uniform working day. The celebrated Adamson Law, enacted by Congress in 1916 to forestall an extensive strike, was designed to establish an eight-hour day for such railway operatives as were engaged in interstate traffic, but the law has been used more to fix a basic eight-hour day for which a full day's wages are to be paid than actually to limit hours of work to eight.

A third field in which the government has successfully undertaken to regulate the hours of men has been in mining and in similar exceptionally hazardous industries. Here the purpose was not safeguarding the general public, but rather protecting the safety and health of the workers. In the case of *Holden v. Hardy*, already cited, the Supreme Court of the United States unequivocally took the position that a State legislature may lawfully exercise its police power in limiting the hours that men may work in underground mines. The court said: "While the general experience of mankind may justify us in believing that men may engage in ordinary employments more than eight hours per day without injury to their health, it does not follow that labor for the same length of time is innocuous when carried on beneath the surface of the earth, where the operative is deprived of fresh air and sunlight, and is frequently subjected to foul atmosphere and a very high temperature, or to the influence of noxious gases generated by the processes of refining or smelting."¹²

As a result of this decision of the court sustaining the constitutionality of Utah's eight-hour law, virtually every State in which mining is an important industry eventually passed a law restricting the hours that a miner may work to eight per day.

More recently two States, Mississippi in 1912 and Oregon in 1913, enacted laws fixing a ten-hour day for men working in factories. The constitutionality of both measures was upheld on health grounds. North Carolina in 1915 enacted an eleven-hour law for those engaged in general manufacturing. Oregon, ten years after its first venture, reduced the factory working day to eight hours,

¹² 169 U.S. 396 (1898).

upon condition that similar legislation be adopted by adjoining States.

The most extensive attempt ever made in the United States to regulate the maximum hours of work took place under the codes of the National Industrial Recovery Act from its enactment on June 16, 1933, to May 28, 1935, when the code-authorizing section of the act was declared unconstitutional. Thirty-five- to forty-hour working weeks became the general rule.

SAFETY AND HEALTH LEGISLATION

As the preceding discussion has shown, one of the principal objectives in restricting hours of work has been to make more adequate provision for the safety and health of workers and thus to promote the public welfare. Limitation of hours, however, is only one of many safety and health measures enacted by legislatures and set up by governmental agencies. There are other forms such as safety codes and health measures that deserve consideration.

Safety and health legislation is directly due to the greatly increased physical hazards of modern machine industry, as compared with the lesser risks to life and limb of the earlier handicraft system. As long as men worked with hand tools rather than with power-driven machines, worked at their own speed rather than at the pace set by machines, and worked under conditions subject to their own control rather than that of managers whom they rarely, if ever, saw, these men might reasonably be expected to look out for their own safety and health. Under modern industrial conditions, however, the individual workingman who complains against working conditions is just as apt to lose his job as to get the improvement. The pressure of competitors and the lure of quick profits are so strong that individual employers frequently cannot be depended upon to safeguard the worker, even though prompted to do so by considerations both of humanity and of long-run efficiency. Labor-unions have rendered valiant service in protest and constructive criticism. Governmental legislation and regulation, however, have

proved the only effective means of procuring both adequate and uniform protection.

It has been estimated by Ethelbert Stewart that the pre-depression death toll of industry in the United States annually was probably not under 23,000, and that the number of non-fatal injuries resulting in loss of time beyond the day on which the injury occurred was not under 2,500,000. For the years 1932 and 1933 the National Safety Council estimated that the number of fatal accidents in industry was about 15,000 and the non-fatal accidents approximately 1,200,000.¹³ Statistics for some industrial establishments prove that fully 50 per cent of these accidents are preventable. Beyond this gruesome spectacle of the dead and maimed in industry, about whom we as a people seemingly care so little that we do not even make a full and accurate count of our casualties, are hundreds of thousands of others suffering from preventable industrial diseases.

In order to reduce this appalling annual toll of industry, safety codes of regulations have been developed and then made effective by the supervision of some governmental agency. Safety devices, both simple and ingenious, have been very generally introduced into industry, mining, and transportation. Illustrative of what has been done to reduce the risks of death and injury in present-day work places, the following safety appliances and practices may be mentioned: the guarding of the working parts of machines, such as circular saws, as well as the protection of workers by means of casings, screens, or rails against the gears, shafts, and belts that transmit the power; the countersinking of set-screws on shafts so that workers may not get caught by them; the installation of hoods to catch fine splinters thrown off by emery wheels in grinding operations, and the use of goggles by the operator; the protection of elevator shafts by automatic or other locking devices; the use of "safety nets" to catch falling workmen or materials in building construction; the use of safety lamps in mining; and the installation of automatic couplers on railroad equipment. Experience has proved, however, that neither the legal requirement nor the actual installa-

¹³ Ethelbert Stewart, United States Commissioner of Labor Statistics, in *Annals of the American Academy of Political and Social Science*, CX XIII, No. 212 (1926), 3; for estimates of National Safety Council cf. *Monthly Labor Review*, XXXVII (1933), 298; XXXIX (1934), 333.

tion of safety appliances is enough; workers must be taught to use them. This is accomplished through systematic education in "safety first" and through the organization of rotating safety committees among workers.

Among diseases directly attributable to industry was the loathsome disease, popularly known as "phossy jaw", which was due to poisoning by phosphorus in the match industry. Long before social conscience was aroused on the matter in the United States, most European countries had prohibited the use of white phosphorus in the manufacture of matches.¹⁴ Although a non-poisonous substitute was discovered, it required an act of Congress to compel all the manufacturers of matches in the United States to abandon the somewhat cheaper but poisonous phosphorus and thus to banish "phossy jaw" from the land. Lead poisoning, due to the gradual absorption of the poison in painting, has been similarly treated by some European countries. In addition to such prohibitory measures, many provisions have been made looking to the creation of more sanitary and wholesome working conditions in order to counteract the development of industrial disease.

LEGISLATION CONCERNING EMPLOYERS' LIABILITY

In spite of all that has been done by direct governmental control and intelligent private action to prevent accidents, hundreds of thousands of such accidents occur annually in the United States. Who shall bear the cost? One of the most urgently needed forms of industrial control in this country has been that of adequately providing for the workingman who was the unfortunate victim of an accident while engaged in the ordinary discharge of his duties. Modern industry with all its impersonal complexities had inherited a legal doctrine of liability that arose when the contact between master and servant was direct and individual liability could easily be determined. Such a theory of liability soon proved pitifully inadequate protection for the injured workingman under the conditions of modern industrialism.

¹⁴ Finland in 1872 and Denmark in 1874. The Congress of the United States did not take similar action until 1912.

Employers' liability under the common law. Under the common law it is the duty of the employer to use reasonable care in providing for the safety of his employees while they are engaged in his service. It is his duty to use reasonable care (1) in providing a safe place to work, (2) in furnishing safe tools and other equipment, and (3) in selecting competent fellow-workmen. He is liable for damages if his negligence in any of these respects leads to the injury of his employees. The concept of "reasonable care", however, proved somewhat elastic. In practice it did not mean all possible care, but only safeguarding the worker against those dangers of which the employer had knowledge or might be presumed to have knowledge through the exercise of diligent watchfulness. When in spite of such "reasonable care" accidents occurred, they were regarded as inevitable; the employer was without fault and the burden rested upon the injured workingman.

To establish the liability of the employer and to recover damages for injuries sustained, it was necessary for the injured workman to bring suit against his employer and to prove that he had failed to exercise reasonable care in protecting his employees against injury. Such litigation was usually both time-consuming and expensive. It was often defeated by the shrewd lawyers retained by the employer or by the insurance company that fought the case for him. Experience proved that in the aggregate, even where damages were recovered, only a minor percentage actually reached the injured workman.

Common-law defenses of the employer. The law, moreover, permitted the employer to set up certain defenses which in practice very often made the recovery of damages impossible, even though it was a denial of justice to make the injured workman carry the burden that the industry should have borne. These celebrated common-law defenses of the employer in damage suits are (1) the contributory negligence of the employee, (2) the negligence of a fellow-servant, and (3) the assumption of risk by the employee. No matter how great the negligence of the employer, if he could show in defense that the injured workingman's negligence contributed to the accident, the case of the workingman was lost. Similarly, an injured workingman's suit for damages was usually defeated if the employer

in his defense could show that the negligence of a fellow-servant was responsible for the injury. To cap the climax, it was held that the employee assumes not only the ordinary hazards inherent in the industry (it was part of the assumption-of-risk doctrine that compensation was adjusted accordingly, although this was often fiction), but also any special risk of which the employee becomes aware but in spite of which he continues at work. Should an accident result from such risks, the workingman cannot expect to recover damages.

A simple English case, the case of *Priestley v. Fowler* decided in 1837, illustrates the application of the last two of these doctrines. The case was as follows.¹⁵ Priestley and a fellow-worker, both employed by Fowler, a butcher, were moving goods one day, in the ordinary discharge of their duties, when their cart broke down and one of Priestley's legs was badly injured. Priestley sued Fowler, alleging in his complaint that the defendant did not use proper care to see that the van was in a proper state of repairs and was not overloaded, and that in consequence of the defendant's neglect in each of his duties the van gave way and broke down, and the plaintiff was thrown to the ground. Although the jury found for Priestley and awarded him damages amounting to £100, when the case was appealed to a higher court this decision was reversed. The court held that there was no ground for action, since the employee must be held to have assumed the risk of his employment and himself must be the sufferer for the negligence of a fellow-employee. The same principle was enunciated in two American cases a few years later.

It is not surprising that a system of employers' liability hedged in by such defenses often appeared a caricature of justice to the workman and, to the employer not solely moved by monetary considerations, an ugly thing to utilize. It was slow, expensive, wasteful, unjust, irritating, and ineffective in preventing accidents. The grave shortcomings of the system of employers' liability as established under the common law led to the substitution of a system of workmen's compensation provided for by statute law and usually administered by some compensation board.

¹⁵ *Priestley v. Fowler*, 3 Meeson and Welsby 1-5.

WORKMEN'S COMPENSATION LEGISLATION

No other form of labor legislation has ever been so quickly or widely adopted as has workmen's compensation legislation. Europe took the initiative in the movement, and at present all European countries have established systems of workmen's compensation as substitutes for common-law systems of employers' liability. In the United States at the opening of 1936 only two States¹⁶ were without compensation systems, although the first compensation laws to become effective had not been enacted until 1911.¹⁷

As pointed out in the preceding discussion, under the time-honored plan of employers' liability for negligence, the injured workman had to litigate and to depend upon a jury for an award of damages. Workmen's compensation legislation, on the contrary, grants the injured workman compensation according to a predetermined schedule of benefits fixed by the law or by a board designated for the purpose. The new plan of compensation is altogether superior to the old plan of damages. It is fixed, where the older plan was indefinite; it is cheap, while the other was expensive; compensation is easy to secure, whereas damages were usually obtained with difficulty; compensation payments are fairly adequate, while damages were notoriously inadequate. Carl Hookstadt, a careful student of compensation legislation, expresses the contrast in the following way:

The theory underlying the old employers' liability system is the payment of damages to an employee for an injury resulting from the employer's fault or negligence. It is recompense for a wrong. The new compensation system, with unimportant exceptions, abolishes the whole question of negligence and bases its justification upon economic necessity. Instead of the least able unit of industry assuming its risks, the consuming public acting through the employer, furnishes relief to injured workers by fixed awards.¹⁸

Types of compensation systems. Two principal systems of workmen's compensation are in operation: the compulsory and the

¹⁶ Arkansas and Mississippi.

¹⁷ By Wisconsin, Nevada, New Jersey, California, and Washington in the order named.

¹⁸ *Comparison of Workmen's Compensation Laws of the United States and Canada up to January 1, 1920*, United States Bureau of Labor Statistics, Bulletin 275 (1920), p. 59.

elective. Under a compulsory system all employers coming under the act (and usually employees as well) are obliged to accept its provisions, paying and receiving the scheduled benefits. They have no alternative. Under the elective system both employers and employees have the option of accepting the provisions of the compensation act or of continuing under the old liability law. As a means of "inducing" employers to accept the principles of workmen's compensation rather than of clinging to the antiquated protection of employers' liability under the common law, most statutes provide that in the event of the employer's failure to accept the compensation act he shall be deprived of the ancient common-law defenses in case suit for damages is brought against him. The penalty he pays for his unwillingness to accept workmen's compensation is the forfeit of the protection afforded by pleading the employee's contributory negligence, the negligence of a fellow-employee, or the employee's assumption of risk. While in some States operating under the elective system the employer must make a positive choice, in most States he is under the act automatically unless he elects to stay out. Of the States in this country having compensation acts the large majority have enacted elective measures. The chief reason for this was the desire to reduce the risk that the acts be declared unconstitutional.¹⁹

Scope of compensation laws. In passing judgment upon the adequacy or inadequacy of a given compensation statute, four features are of the greatest importance: (1) the scope of the compensation act; (2) the scale of benefits provided; (3) the insurance of risks involved; and (4) the administration of the compensation law.

While a perfect compensation system should cover all accidental injuries in all employments, no compensation law so far passed attempts to do this. In practice it has been found necessary to restrict the application of the law. In the United States all but Maine and New Jersey exclude agriculture and domestic service. Casual

¹⁹ New York's Compensation Law of 1910, the first comprehensive statute of the kind passed in this country, while elective for some industries was compulsory for the more hazardous occupations. It was declared unconstitutional the following year on the ground, among others, that to *compel* an employer to compensate an injured workman for an accident for which the employer was not responsible is to deprive him of property without due process of law. Cf. *Ives v. South Buffalo Ry. Co.*, 201 N.Y. 271.

laborers are usually not covered, and about a dozen States exempt employments that are not carried on for the gain of the employer. After exempting certain groups, the scope of the act is usually determined either by enumerating the hazardous occupations to which it shall apply or by making it cover all employments having a specified minimum number of employees. Of these methods the first is much the less satisfactory. It always results in arbitrariness of classification of industries. If a workingman is maimed or killed, it does not help matters one whit to know that the injury or death occurred in a normally non-hazardous occupation. Human suffering and often privation result wherever accidents or deaths occur in industry. There compensation is needed. Much more satisfactory, because more inclusive, is the method of determining the scope of a compensation act by including all employments, except those specially exempted, that have a specified minimum number of employees, such as three or four or five. There is some truth in the contention that the risk of accident is less in employments in which there are few fellow-employees.

To obtain compensation it is necessary to show that the injury resulted from a hazard of the employment and usually, too, that it occurred during the course of the employment.

Scale of compensation benefits. The compensation actually received by an injured workingman is usually a composite of three elements: the rate (which is generally a percentage of the weekly wages), the period of time for which it is paid, and a fixed maximum amount which it cannot exceed. The rate varies in the several States of this country, ranging from 50 to 66 $\frac{2}{3}$ per cent of the weekly or monthly wages. In most States the period of payment is shorter than the period of disability, being arbitrarily fixed by statute. Consequently, since an injured workman's income is reduced from one-third to one-half as a result of his incapacity, since it usually cannot exceed a stipulated maximum, and since it ceases altogether if the period of disability extends beyond the prescribed time limit, it is evident that even under a compensation system a considerable part of the economic loss falls upon the injured workman and his family.

The compensation benefit also varies with the result of the

injury, be it death, total disability, or partial disability, and, in the case of disability, with the permanent or temporary nature of such disability.

In the case of death, the general rule is that the compensation paid the dependent survivors shall equal a stated percentage of the wages of the deceased employee for a specified period of time. This is usually the equivalent of three or four years' earnings. Settlement is usually not made in a lump sum but in weekly or monthly instalments.

For permanent total disability, which often involves a greater economic burden for the injured workman's family than death itself, fourteen States specify life payments without any restriction upon the total amount to be paid.²⁰ In the majority of States, however, the compensation paid equals 50 to 66⅔ per cent of the weekly wages for a specified period of weeks. Permanent total disability, as far as compensation laws are concerned, is illustrated by "total blindness of both eyes, or the loss of both arms at or near the shoulder, or of both legs at or near the hip, or of one arm at the shoulder and one leg at the hip".²¹

Fair compensation for partial disability presents the greatest difficulties. The chief reason for this lies in the fact that although the injured employee returns to work, he may be handicapped for life. To help meet the loss due to such partial disability two methods of payment have been devised: to pay a percentage of the wage loss or to compensate for specified injuries for a stated number of weeks. The first method may be illustrated by the Wisconsin practice under the law as amended in 1931. If an employee earning \$20 per week is totally disabled, he receives 70 per cent of his weekly wage or \$14 as compensation for every week of his total disability. Assuming that he recovers, but upon returning to work because of his permanent partial disability is able to earn only \$15 per week (a loss of one fourth of his previous earning power), he is also allowed an indemnity equal to one fourth of the \$14 total disability or \$3.50, making his weekly income \$18.50. Under the Wisconsin

²⁰ United States Bureau of Labor Statistics, *Handbook of Labor Statistics* (1931), Table 7, p. 902.

²¹ Wisconsin Statutes (1925), Section 102.09.

law the maximum period of such compensation is 1,000 weeks. The second method is illustrated by the New York practice of compensating for the loss of a hand, for instance, by payments for a period of 244 weeks.

In order to restore the injured workman as rapidly as possible to earning power, surgical and medical care and hospital service are necessary. While virtually all States make some provision for such service, only eight States and the federal government limit neither time nor amount.²²

Insurance of compensation risks. To guarantee security of payment of compensation to the injured workman and to protect the employer against the risk of heavy loss, almost all compensation States require the employer to insure his risk. This he may do by carrying his insurance in a private insurance company or in a State insurance fund, if the State concerned provides one. Self-insurance is permitted in a majority of the States, if the employer can furnish proof of his ability to meet possible compensation payments and to deposit the bond or other security sometimes required.

Administration of compensation law. In order that the injured workman may promptly and regularly receive the full compensation to which he is entitled, some administrative system is essential. Two plans are in operation in this country: the commission plan and the court plan. Under the former a central board, usually consisting of three or five members, is responsible for the administration of the compensation law. Under the latter, compensation matters are settled directly between the employer, or the insurance company as his representative, and the workman. In the event of a dispute the questions involved may be taken to the court for settlement. In 1931 thirty-seven States were operating under the commission plan and seven under the court plan. Hookstadt, in the report cited previously, points out that

The great predominance of the commission type of law seems abundantly warranted from the experience that has developed under the various methods. The need of authoritative agencies to administer compensation laws is sufficiently demonstrated in those States which do not possess them. The average non-English-speaking foreign workman is generally unfamiliar

²² United States Bureau of Labor Statistics, *Handbook of Labor Statistics* (1931), p. 907.

with his rights under the law and does not know what action to take in case of injury. Complaint, too, is frequent that the fear of discharge acts as an effective deterrent in demanding compensation.²³

There has been a strong movement among the States to consolidate all agencies dealing with various forms of control over industry for the protection of labor into a single body, generally called an industrial commission. Such industrial commissions have been granted extensive powers and have discharged administrative and quasi-judicial functions in such a way as abundantly to justify their existence.

CHILD LABOR LEGISLATION

Need of regulating child labor. The need for some form of regulation of industry for the protection of child labor became evident early in the industrial period. In the textile industry, where the industrial revolution had its beginnings, mills were run by water-power, and since in those days there was no such thing as the conversion of water-power into electrical energy and its long-distance transmission, the mills were often situated in remote parts of the country. Labor was difficult to obtain in such places. There was an available supply, however, in the parish poorhouses, where the pauper children were kept. The authorities of these institutions were easily persuaded to bind out the luckless pauper children to become apprentices in these mills. The textile mill operators worked them long and hard as they did their machines—and no one seemed to care. The child workers were often so tired that they fell asleep during work; they were sometimes soused in water to keep them awake and at work; they often became so fatigued that they even went through the motions of work after they had supposedly retired to sleep.

Public conscience in England was aroused enough to secure the passage in 1802 of the first parliamentary act regulating the hours of work of children. Its provisions are astonishing to a reader familiar with the highest modern standards. They included the prohibition

²³ *Comparison of Workmen's Compensation Laws of the United States and Canada up to January 1, 1920*, pp. 115-116.

of the binding-out of children under nine years of age, the restriction of hours of work to twelve, and the prohibition of night work!

What a contrast there is between the Act of 1802 and some of our present-day child labor laws! The present Wisconsin statute, for instance, requires that a child be sent to school until the end of the school year in which his sixteenth birthday occurs, except that home work is allowed after the fourteenth birthday if the child's gainful labor is needed for family support. Should employment after the fourteenth birthday become necessary, he must spend half his time in a continuation school to the end of the school year in which his sixteenth birthday comes and thereafter a minimum of eight hours per week to the end of the school year in which his eighteenth birthday occurs. This statute gives some indication of the progress that has been made in somewhat more than a century in providing opportunities for children. The problem of child labor, it must be emphasized, is not merely the negative problem of prohibition; it is also the positive problem of furnishing the right opportunity for children.

Federal child labor laws. In the United States the federal government has twice attempted to regulate child labor and thereby to bring about uniform protection for children. The first attempt was in 1916 when Congress, under the power conferred upon it to regulate interstate commerce, passed a law prohibiting the transportation of goods in interstate commerce in the manufacture of which children under fourteen years of age had been employed, or children between fourteen and sixteen years except under specified limitations as to hours. This act was declared unconstitutional the following year by the Supreme Court of the United States on the familiar ground of its being an invasion of States' rights. The court said: "The thing intended to be accomplished by this statute is the denial of the facilities of interstate commerce to those manufacturers in the States who employ children within the prohibited ages. The act in its effect does not regulate transportation among the States, but aims to standardize the ages at which children may be employed in mining and manufacturing within the States."²⁴ This, the

²⁴ *Hammer v. Dagenhart et al*, 247 U.S. 251 (1917).

court held, was a police power reserved to the several States and not a power delegated to Congress.

In 1919 Congress tried again, this time imposing a prohibitive 10 per cent tax upon the annual income of a manufacturer who employed children under conditions similar to those prohibited in the previous statute. When the legality of the statute was tested in 1922, the Supreme Court of the United States declared it unconstitutional. The purpose of the law, said the court, was the regulation of child labor, not the collection of a tax, and that is a subject "not intrusted to Congress, but left or committed by the supreme law of the land to the control of the states".²⁵

These two decisions of the highest tribunal of the land made it apparent that if Congress was to exercise any control over child labor, an amendment to the federal Constitution must be submitted to the States for their ratification. Accordingly Congress by the necessary two-thirds vote proposed the following amendment to the Constitution: "The Congress shall have power to limit, regulate, and prohibit the labor of persons under 18 years of age." When submitted to the States it failed to secure the support of the necessary three fourths of the States, but the amendment is still pending.

Need of legislation by the States. For the time being at least any legislation protecting child labor in the United States must come from the several States. According to the Federal Census of 1930 there were more than 2,000,000 gainfully employed children between the ages of ten and eighteen. Not all of these were employed under such conditions and for such periods of time as to render their employment a social problem. It is the children that work under unhealthful conditions at tasks for which they are too young, and for such periods of time as to interfere with their normal physical development, their opportunities for play, and their education, that demand the protection of the law. The principal argument in favor of the constitutional amendment was that it would enable the federal government to enact a law that would set minimum child labor standards in all States. Under existing conditions any State desiring adequately to protect its children must do so knowing that its industries must meet the competition of

²⁵ *Bailey v. The Drexel Furniture Company*, 259 U.S. 20 (1922).

some States having low standards for child labor. While all States now have laws regulating child labor to some extent, only about a dozen have statutes that are up to the standard of the two federal statutes declared unconstitutional by the Supreme Court. As matters now stand, however, the welfare of the children is contingent upon the way in which higher standards of child labor will be effectively enforced by the several States.

For the time of its operation the National Recovery Administration practically abolished child labor through the formulation of codes for industry. Child labor, in the words of the President, "this monstrous thing which neither opinion nor law could reach through years of effort, went out like a flash". What Congress was unable to accomplish through two successive laws prohibiting child labor because they were declared unconstitutional by the Supreme Court; what we were unable to accomplish through a constitutional amendment because it failed to secure the ratification of the necessary number of States; and what the State legislatures were unable to do because of the difficulty of getting them to act coöperatively, was achieved by the N.R.A. through the adoption of codes outlawing child labor.

MINIMUM WAGE LEGISLATION

Extent of minimum wage legislation. The most recent form of control over industry for the protection of labor is legislation and administration establishing a minimum wage for women. English-speaking countries are distinctly the home of minimum wage legislation; New Zealand, Australia, Great Britain, Canada, and some of the American States having enacted such measures since New Zealand in 1894 and the Australian State of Victoria in 1896 blazed the way. By the beginning of 1936 twenty-one States ²⁶ in the United States, as well as the District of Columbia, had enacted minimum wage laws.

²⁶ Arizona, Arkansas, California, Colorado, Connecticut, Illinois, Kansas, Massachusetts, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oregon, South Dakota, Texas, Utah, Washington, and Wisconsin. The laws of Arizona, Arkansas, Kansas, and the District of Columbia have been declared unconstitutional. Nebraska and Texas have repealed their laws.

In some States the minimum wage is a "flat rate" set by law for designated industries. More frequently the law provides for the creation of a board whose duty it shall be to fix the minimum wage in the industries affected after a careful study of the facts. The wage thus set is obligatory in all the "wage-board" States except Massachusetts, where it serves as a recommendation depending upon the pressure of public opinion for adoption.

While there had been some question about the constitutionality of such legislation in the United States, the Supreme Court seemingly settled the issue when in 1917 it upheld the constitutionality of the Oregon law, on the ground principally that it was a legitimate exercise of the police power of the State.²⁷ In 1923, however, the Supreme Court declared the District of Columbia minimum wage law unconstitutional²⁸ and in 1925 the same fate befell the Arizona law. The court now held that the principle of the minimum wage represented invalid interference with the right to contract and also deprived persons of property without due process of law. The effect of these recent decisions has been to render virtually all compulsory minimum wage laws inoperative in the United States.

Under the National Recovery Administration and until the code-making authority was declared unconstitutional, the principle of the minimum wage was written into all the industrial codes approved by the President.

Theory underlying a legal minimum wage. The basic assumption in minimum wage legislation is that the groups affected need the protection of the law. They need it for two chief reasons: first, because the level of wages in many occupations is too low to permit workers to maintain themselves decently without the aid of others; secondly, because it has proved impossible to organize these low-paid workers into unions for effective collective bargaining. In the case of girls and young women this situation is largely attributable to their inexperience, to the large numbers seeking certain types of employment, to the fact that three fourths of them are partly supported at home, and to the further fact that their occupa-

²⁷ *Stettler v. O'Hara et al* (constituting the Industrial Welfare Commission), 243 U.S. 629 (1917).

²⁸ *Adkins et al., as Minimum Wage Board of District of Columbia v. Children's Hospital*, 261 U.S. 795 (1923).

tion is a stop-gap between the conclusion of formal schooling and marriage.

Low and inadequate wages for women, as Felix Frankfurter and Josephine Goldmark point out in their brief submitted to the United States Supreme Court in the Oregon Minimum Wage Cases,²⁹ have (1) a bad effect upon the health of women. For the maintenance of health, goods are necessary that inadequate wages cannot buy. Any decline in the health of women, moreover, is apt to prove detrimental to the health of the next generation. (2) What is more, inadequate wages have a bad effect on morals, since they prove a temptation to adopt easier means of obtaining coveted goods. (3) Underpayment also destroys competition among the workers. "The real purpose and effect of minimum wage legislation", say the writers of this brief, "is not to restrict, but to open the way for, and preserve reasonable competition among the workers. When no limit exists below which wages may not fall, the laborer's freedom is in effect totally destroyed. . . . The establishment of a minimum wage by enabling the workers to live in health and frugal decency provides the possibility of fair competition."³⁰ (4) Payment of less than a living wage imposes a burden upon someone. It may be society in increased expenditures for hospitals, relief work, or reformatories. It may be the workers themselves in impaired health and efficiency. It may be their families who have other means of support. In any case the products of the underpaying industries are subsidized.

Higher wages on the contrary, it is argued, not only avoid these bad effects but also provide an incentive to increased efficiency. The employer is stimulated to effect improvements in organization and management in order to reduce other-than-labor costs. The employee is enabled to render better service as a result of his improved physical condition and mental outlook.

On account, therefore, of the need of protecting women workers, of the bad effects of low wages, and of the positive benefits of high wages (so runs the argument), a legal minimum wage for women is desirable.

²⁹ In the reprint of the National Consumers' League, pp. 77 ff.

³⁰ *Op. cit.*, p. 330.

Objections to a legal minimum wage. Many economic objections have been raised to the principle of a legally established minimum wage, but for the most part the gloomy forebodings of opponents have not come true in experience. It has been argued, for instance, that to fix a legal minimum wage means higher wages, which inevitably result in higher prices to consumers, including wage-earners. What this argument overlooks is that the increase in wages does not necessarily require an equal increase in prices and that, if prices must be advanced, the increase is borne by all consumers and not by wage-earners alone.

The argument has also been made that the establishment by law of minimum wages would increase unemployment, because the employer could not afford to run his business on philanthropic principles and consequently must dismiss workers whom he cannot profitably employ at the legal minimum. To meet the problem of the sub-standard worker, most statutes provide for the employment of such less efficient workers at lower wages provided such action meets with the approval of the regulating board. In practice there has been no considerable and permanent displacement of women workers as a result of minimum wage legislation.

It has frequently been contended that in practice the minimum wage would become the maximum. But this *a priori* assumption has also proved groundless in experience. After the new lower limit has been set and time allowed for adjustments, variations in wages between the more and the less efficient workers have continued to exist. If the minimum wage were actually to become the maximum, the better workers might lose some of their incentive to do good work, which would be to the detriment of industry. No minimum wage law contemplates fixing wages; it merely as a protective measure sets the lower limit below which wages shall not fall.

Organized labor itself has often been none too friendly to minimum wage legislation. Some of its leaders have feared that the labor-union movement might lose prestige with the workers if wage gains could be secured without the aid of the unions. This fear, too, has proved gratuitous.

Results of minimum wage legislation. What limited experience we have had with the minimum wage leads to the conclusion that

such legislation tends to raise the level of wages without effecting an equal rise in prices. Experience for the most part, however, has been restricted to the poorest-paid women workers.

Minimum wage laws have tended to make "parasitic" industries self-supporting. If improvements in production cannot be made or the consuming public will not pay the price necessary to permit a living wage, the industry deserves to perish.

Such laws have removed the handicap of the enlightened employer, who was willing to pay higher wages but was restrained from doing so by the necessity of meeting the competition of producers paying low wages.

The legal compulsion of paying a minimum wage has focused attention upon the whole problem of low wages, including the incapacity of some individuals to earn a minimum wage as well as the reputed inability of some industries to pay it. This in itself is a social service of no mean importance and of much promise.

While a minimum wage law, if made applicable to all industries and all workers, and especially if suddenly introduced, would doubtless disrupt industry and eventually break down, this is in no fair sense a valid criticism of the honest attempts that have been made to protect limited groups of workers particularly liable to exploitation.

CHAPTER XXXVI
CAPITALISM AND PLANS FOR ECONOMIC
RECONSTRUCTION

FOUNDATIONS OF CAPITALISM

The institution of private property. The foundation of the present capitalistic structure of society is found in the institution of private property. The right of property is a socially sanctioned relation between men and goods which has not always existed and which many people hope will not always continue to exist. It is quite possible to imagine a propertyless world, or at least an economic world in which the private right to hold property is very much more restricted than it is today—restricted perhaps to the goods we actually consume in the direct satisfaction of our wants. But the great fact remains that the economic world most of us know is a world of private property rights. Not only consumers' goods, but also producers' goods, including both natural resources and the capital goods produced by man, have predominantly become the objects of private property rights. And if there are those who are eager to destroy this institution as the source of all economic evil, there are others just as zealous to maintain it as the source of untold economic good.

Nature of property. Property has been defined as "an exclusive right to control an economic good".¹ Such control may be either private or public; we have both private and public property. The exclusive right of control conferred by property includes such rights as the rights to use, to hold, and to sell. While, strictly defined, the term "property" means a legally recognized right of control, in popular parlance the term is also used to designate that which is owned or controlled. Property is more than possession. Whoever has

¹ R. T. Ely, *Property and Contract in Their Relations to the Distribution of Wealth* (New York: The Macmillan Company, 1914), I, 101.

possession of a good has the opportunity to use it, but he has no lawful title that he can defend against the legal owner. Property, however, confers an exclusive right of control, recognized and guaranteed by a third party, the state. While property rights are exclusive, they are not absolute. Society, for instance, does not long permit individuals to use their property in such a way as to make of it a public nuisance or menace.

Origin of private property. Private property is such a commonplace of everyday life that most people complaisantly take it for granted. From earliest childhood they have been taught the distinction between "mine and thine", and thus they have come to recognize exclusive rights of control. It is therefore not surprising that many people fail to appreciate that private property is only maintained by ceaseless vigilance on the part of the state and that like all other human institutions, it is constantly being modified by social control.

The humble beginnings in primitive society of the present all-pervasive institution of private property are doubtless to be found in articles of personal use. These were looked upon as belonging to the personality of him that used them, and upon his death they were often buried with him for possible use in the great beyond. Primitive society sanctioned private property in such goods as weapons, trophies of the chase or war, personal adornments, utensils, and sometimes the family hut or cave, all of which were largely the products of the owner's effort.

In the beginning there was no private property in land. Historical evidence seems to show that clans or tribes took possession of lands they desired, and then asserted their claims against rival groups, by force if necessary. Simple appropriation by those strong enough both to take and to hold was apparently the origin of much tribal ownership of land. Throughout the direct appropriation and pastoral stages, as well as the early part of the agricultural stage, there was no private property in land of individual members of the tribe. It was not until people settled down to a more fixed abode that we find the beginnings of the institution of private property in land. But even in the agricultural stage land was for a long time a free good. As population grew, however, and as land could no longer

be abandoned as soon as its fertility was exhausted, a system of periodic allotments to families developed; this encouraged the more productive use of the land. The land itself, however, was still owned by the tribe as a whole and periodically redistributed. As families improved the lands they occupied, they were naturally loath to part with these improved lands, even for the common good. Gradually a system of family, and ultimately of individual, ownership developed. Thus, possession claims, at first vague, gradually ripened into definite property rights.

While priority of possession, however that may have come about, doubtless explains the origin of private property in land, the origin of private property in produced capital is unquestionably to be found in man's labor. Unless they have contracted otherwise, it is natural to assume today that what men have made with their own hands they have a right to own. So it doubtless was in primitive society. The fact of production gave the producer a strong sense of ownership which he was quick to assert and which the group came to recognize.

The social utility of private property. Whatever the origin of private property may have been, and however venerable it may have grown through age, its historical origin and its present justification as the foundation of our capitalistic system are two entirely different matters.

Some interesting theories have been advanced to explain and defend the institution of private property. As the preceding discussion of the origin of property has at least suggested, two of the earliest of these have been the *occupancy theory* and the *labor theory*. According to the former, as just pointed out, property is based upon priority of appropriation, an explanation obviously restricted to unoccupied land or other forms of unutilized wealth. The appropriation, however, upon which the title to many natural resources rests historically has been forcible conquest rather than peaceful occupation.

According to the labor theory the explanation and justification of private property are to be found in the fact of production. Whatever is the product of man's effort he has a right to call his own. While this theory strongly appeals to the sense of justice of people,

it fails either to account for or to justify property in natural resources, the particular object of the earlier occupation theory. If there were no stronger justification for private property than the principles of occupancy and labor, it would at least require a combination of the two to give us a sufficiently inclusive theory.

Attempts have also been made to explain and defend private property on more subtle and intangible grounds. Some have clung to a *natural rights theory of property*, claiming that man's holding of property is as natural and inalienable a right as "life, liberty, and the pursuit of happiness". Such a theory of property is subject to all the limitations of the now discredited natural rights philosophy. Rights must be defined, which makes them social rather than natural. What some of the proponents of this theory mean, however, as Charles Gide has pointed out, is "that property is an indispensable condition of personal independence, since he who possesses nothing is compelled to put himself at another's service in order to live". As he goes on to say, "There is no more revolutionary theory than this, for if property is a natural right, what are we to say to all those who have been deprived of it and who demand it?"² The partial truth in this theory will be emphasized in the social utility theory to be considered later.

Realizing the difficulties in the theories just considered, some protagonists of private property have set forth a *legal theory* of property. They contend that property is a matter of legal definition. This is true, but the more searching question is, Why are property rights recognized at all? This the legal theory does not explain.

An explanation is found, however, in the so-called *social utility theory* of property, the most comprehensive of them all. According to this theory private property rights exist and may be justified because private property is socially the most useful mode of utilizing wealth. The theory does not deny that public property is preferable to private property in some goods. It does not assume that the institution of private property is perfect; or that it should prevail universally; or that private property rights should be absolute.

² *Principles of Political Economy*, tr. from the 23d French edition by E. F. Row (Boston: D. C. Heath and Company, 1921), p. 338.

The criterion that it sets up is the promotion of the social welfare, and it justifies private property on the ground of its social usefulness as a powerful incentive to the production, conservation, and utilization of wealth. From this point of view private property is maintained as a social trust, and the owner is a trustee pledged to use his property in the social interest. Should the institution fail, society has control agencies at its disposal and correctives that it can apply. Because on the whole it has served to promote both private and social interests, the institution of private property has in most countries withstood attacks upon it as the foundation of the existing economic order.

The institution of inheritance. While it is rather generally supposed that the right of private property implies the right of directing the disposition of property upon the death of its owner, this is not strictly true. The right to hold property and the right to make a testamentary bequest of the same effective upon the death of the owner are two distinct rights. Both are fundamental to the existing economic order, but they are separately maintained by the state. "Succession by bequest" is the phrase used to describe the transmission of property if the deceased owner has left a will; "succession by inheritance", if he has died intestate, that is without making a will. In common speech, however, the term "inheritance" is used to designate any succession of property rights from the dead to the living, whether by will or intestate law.

While some look upon inheritance as the proper culmination of property rights and regard it as an institution to be zealously guarded, others consider it as the chief cause of the uneven start which people get in the race of life. How basic it is to the present economic system is evidenced by the fact that the simplest way of changing the system would be to change the laws governing the inheritance of property. By imposing heavy inheritance taxes, amounting to capital levies, society could in a comparatively short time become the owner of much property that is now in private hands. The chief reason why this has not been done is the same as that generally advanced in justification of private property, namely, the social utility of allowing private individuals not only to hold property but also to determine its succession after their

demise. Inheritance rights, however, are no more absolute than are private property rights generally; the state imposes various limitations upon both of them in the interest of the social welfare. In the main, rights of inheritance have been maintained, in spite of rapidly changing family relations, because it has been recognized that the right to transmit property to members of one's family or to other supposedly worthy beneficiaries or purposes stimulates the productiveness of men and on the whole effects the best utilization of wealth. Those who do not share this conviction direct their severest criticism against this prop of the existing economic order—and there are countless instances of the mismanagement of inherited wealth by ne'er-do-well heirs.

The rights of free enterprise and free contract. Capitalism, based on private property in production goods, further implies that capitalists shall have freedom to engage in any enterprise they choose and that men shall be free to enter into the necessary contractual relations for the production and acquisition of wealth. Although there are limitations upon such freedom of enterprise, in the main modern economic society permits individuals to organize production and by contracts among themselves to determine what they shall get in return for their commodities and services. A very different form of economic organization in which the state might organize production is entirely possible, but so far most people have preferred to retain freedom of private initiative and freedom of contract. Private initiative is based upon the profit-seeking motive, which capitalistic society counts upon to stimulate men to put forth their greatest productive efforts.

As economic society is organized today most men depend not upon status, as did the slave and the serf, but upon contract for the definition of their duties to and claims upon the economic system. The buying and selling of goods involve contracts. We contract for the services of others or to render our own, specifying wages and other conditions of employment. The borrowing of money, the leasing of land or other durable economic goods, the purchase of an insurance policy, and the consignment of goods for transportation are all economic transactions involving contractual rights and obligations. Our modern division-of-labor economy

would be impossible except upon the basis of legally binding and enforceable contracts.

A contract is an agreement between two or more persons, enforceable by public authority, to do or not to do a given thing. What is true of property is true of contract: just as there is no property until the control of a good is guaranteed by a third party, the state, so there is no contract until public authority stands ready to enforce the agreement. But if the subject of the offer and acceptance is proper and not contrary to public policy, if the contracting parties are capable, and if valuable consideration is given, the contract is binding and enforceable by public authority. Breach of such contracts renders the offending party liable for the payment of damages.

Private property and inheritance, free enterprise and contract are the foundations of modern capitalism. Remove them, and the whole superstructure will crumble. Remove any one of them, and the whole capitalistic system will be profoundly changed.

THE CONTROL OF THE CAPITALISTIC SYSTEM

Capitalism as an economic system for the satisfaction of human wants is subject to control from both within and without. Competition is the internal self-regulator; public authority is the external governor.

Competition. Capitalism depends upon the all-pervasive force of competition to regulate production and to determine the distribution of income. It encourages the free initiative of individuals and then relies upon their competition to protect the interests of society. Competition among sellers, who are anxious to procure markets for their goods, is the chief reliance of the system to give the consumer "a square deal". Pressure to meet the selling prices of one's competitors, and if possible to sell at a still lower price, tends to hold prices down and thus to give the consumer the lowest possible price. Competition among buyers, who are eager to obtain goods either for further production or for consumption, tends to raise prices and to assure the producer a return that will enable him to operate.

At its best the system is supposed to work automatically. If prices and profits in a given industry are relatively high, competition of new producers will be invited, which will tend to lower the price to the advantage of the consumer. On the other hand if producers are getting returns that are low in comparison to profits elsewhere, some of them will tend to seek more remunerative fields, which will prove of advantage to the remaining producers. The effectiveness of competition, as an automatic control device working to protect both consumers and producers, depends upon the readiness with which productive agents can be shifted from one field to another.

Competitive capitalism leaves to profit-seeking individuals the decision as to how their natural resources shall be used and their labor and capital be invested. It assumes that they will base their decisions upon market conditions, noting particularly both prevailing prices and their future trend. If the price for a commodity steadily rises (disregarding general changes in the level of prices), it is a signal to producers that more of this commodity is wanted, either because of some increase in the demand or because of a shortage in the supply. Conversely, steadily falling prices for a given good in relation to other commodities indicate to producers that there is an over-supply and that production should be curtailed. This automatic signal system often fails to procure results that are satisfactory to either consumers or producers, and consequently, as will be shown later in this chapter, it has become the target of a spirited attack by those who would reconstruct the existing economic system.

Public authority. While in the main capitalistic society relies upon competition as its control agency, there is also need for control by government. Capitalism presupposes effective government. Government is needed to guarantee property rights and to enforce contracts. It provides the entire legal system upon which the successful functioning of capitalistic society depends. For the most part, public authority has been exercised as a control agency to supplement competition—to preserve it against the encroachments of monopoly and to regulate the level of competition by forbidding unfair practices. Government has often been called upon to act as

referee in the game of business, and in so doing it has improved the game for both contestants and the interested public. Such control from without the capitalistic system, however, is supplementary to control from within. Under the system of private capitalistic enterprise it is not the function of government to supplant competition in the production of commodities and services but to help make competition effective. Such a system of automatic control is in strong contrast to other systems to be considered in this chapter which substitute control by central authority for control by competition.

THE ACHIEVEMENTS OF CAPITALISM

Whatever the shortcomings of the capitalistic system may be, all must admit that this system, based upon private property, inheritance, free enterprise, and free contract and controlled by competition supplemented by public authority, has scored some notable achievements. Greatest among these is that it has made possible a previously undreamed-of wealth production which, while it has made some individuals fabulously rich, has also accrued to the advantage of the masses. The savings of capitalists, large and small, converted into marvelously efficient machinery of production, have brought forth an ever increasing supply of goods. The savings of yesterday have made possible a more abundant life today. Without them every day would have to witness a new beginning in the production of want-satisfying goods.

The large-scale productive methods of capitalistic industry have resulted in such standardization of product that costs per unit of output have been materially reduced. Lower costs to the producer made possible lower prices to the consumer. Never has the world's demand either for basic necessities or comforts and luxuries been more largely gratified than during the capitalistic era. The consumption of the masses has been both on a larger and on a higher scale than ever before. If capitalism has brought much woe to many people, it must in fairness also be admitted that it has brought more diversified standards of living and larger comforts to all the people than has any preceding economic system.

A third distinctive economic achievement of capitalism is the reward of individual initiative which it offers. In capitalistic society men are free, within the limits set by their ability and means, to invest their time, energy, and accumulated capital as they see fit. The profit-seeking motive galvanizes men into action. For those who develop initiative and enterprise in producing goods that society wants there are financial rewards. However critical one may be of the capitalistic system, it must be admitted that the prizes offered in the game of profit-making have proved remarkably effective in stimulating men, and that in the so-called capitalistic nations we find both the largest individual fortunes and the largest number of rich and well-to-do persons. The competitive system has furnished powerful motivation for economic effort and has brought rich rewards to the successful.

CRITICISMS OF THE PRESENT CAPITALISTIC SYSTEM

Great as are the economic opportunities under capitalism, and unparalleled as have been the achievements of the capitalistic system in wealth production, capitalistic industrialism is now very much under fire. What its future will be no one can predict with any degree of certainty. One thing, however, should be remembered: the system is still very young, scarcely 150 years having passed since its beginnings. In many respects capitalism has not yet had a fair trial to demonstrate how effectively it can promote the well-being of the masses and how unnecessary to its fullest success is the exploitation of either natural resources or human beings.

There are three possible and perfectly intelligible attitudes that men may take toward the existing economic system. They correspond to distinct types of temperament, and in economic, political, and social matters they are bound to exist. The first is the attitude of the economic conservative, sometimes known as a reactionary, due to his exaltation of things as they are or have been. The conservative beholds our economic world and declares it good. To him the present economic system, if not the best conceivable, is at any rate the best possible. He extols the "sacred" rights of private property, of which no man should be deprived without due process of law. He

has a peculiar tenderness for vested interests. He believes in the more or less unrestricted transmission of property rights from generation to generation. He exalts freedom of contract. He wants free competition (although sometimes he is apparently quite content to get along with monopoly). Public authority in private economic matters is to him largely unwarrantable interference with rights proclaimed in the Declaration of Independence and immutably established by the Constitution. *Laissez faire* is his creed; let well enough alone, his motto; more business in government and less government in business, his slogan.

Diametrically opposed to the economic conservative stands the economic radical. If the former belongs to the party of the right, the latter belongs to the party of the left. The radical, too, looks upon our economic world, but unlike the conservative he sees chiefly its shortcomings and consequently pronounces it ready for the scrap-heap. Private property to him means exploitation; inheritance is largely a means for continuing this exploitation of the propertyless by the propertied classes; competition is frequently ruthless and usually wasteful; and *laissez faire* is only the cult of the economically strong.

In contrast to both the economic conservative and the economic radical stands the economic liberal. He, too, observes our economic world, but he pronounces it neither wholly good nor wholly bad. He believes in the maintenance of the institution of private property, because it is socially more useful than a system of common ownership. He supports the institution of contract but insists that the bargaining powers of the contracting parties shall be equalized as much as possible. He believes in a system of competition but contends that the level of competition must often be regulated by the government.

Wastefulness of present system. Out of the turmoil of claims and counterclaims concerning our capitalistic industrial system certain criticisms arrest attention. Perhaps most prominent among these is the claim that the present competitive system is exceedingly wasteful. There is admittedly much truth in this criticism. He would have to be a blind partisan, indeed, who would not readily grant that the present system has failed in achieving maximum pos-

sible efficiency. In the first place, there is waste in the production of goods, for production is never geared to consumption perfectly. It is often planless. Frequently goods are produced that are not wanted. Any economic system that leaves to scattered individual producers, usually incapable of coöperation, the decision as to how much of a good shall be produced and when it shall be brought onto the market is bound to reveal much misdirected effort and great wastefulness. A system in which the guiding motive is the profits of the individual producer is by no means necessarily the most efficient productive system from a social point of view. When the prices to be received and the profits to be made determine the direction of production, they who have the most ample purchasing power speak with the greatest authority in deciding what shall be produced. A decision based upon the dollars to be made does not necessarily imply the production of goods most useful to the largest number of people.

There is waste in the market distribution of goods. Much competitive advertising, for instance, the aggregate cost of which annually runs into hundreds of millions of dollars in the United States alone, represents a dead loss. It is a form of antagonistic effort designed not to stimulate new wants but to induce consumers to buy the advertised good rather than some competing good. Expensive selling organizations, and wasteful cross-freights such as those incurred, for example, when a dealer in Boston sells in the Central States while his Chicago competitor sells in New England, are other forms of waste in market distribution.

There is also waste in the utilization of goods. The most striking example is furnished by the ruthless waste in the development and exploitation of our natural resources. The fertility of the soil in many regions has been woefully depleted, and little or no attempt has been made to renew it. Much land in the United States that once yielded fifty bushels of wheat per acre now produces scarcely fifteen bushels. Our forests have been slaughtered rather than scientifically cut, with the result that a serious lumber shortage is imminent. Mineral resources have often been exploited so as to enrich individual owners, rather than conserved so as to yield the largest

social benefit. Millions of tons of coal have been crushed and abandoned in the competitive struggle of putting coal on the market at the cheapest possible price. Indeed, critics of the existing economic régime contend that such exploitation and waste are inevitable under a system of private property-holding; that only the state can be expected to grow trees to be used fifty years later or to mine our resources so that they will last as long as possible.

Inadequacy of competition as a regulator, resulting in the development of monopolies. Another trenchant criticism of capitalistic industrialism is that competition, the internal self-regulator of the system, has proved ineffective in controlling prices and that in consequence a considerable degree of monopoly power has arisen in various economic fields. While the competition of producers to secure markets for their goods is supposed to ensure high quality and the lowest possible price for the consumer, actually producers often combine to control the supply in order to advance the price to the disadvantage of the ultimate consumer. Such a development of competitive capitalism, the critic of the system holds, is natural; it marks both the logical culmination and the inevitable break-down of the system.

Inequitable distribution of wealth. One of the most frequently heard arraignments of the capitalistic system is that it has brought about a most inequitable distribution of wealth. It is admitted by the critics that wealth production has been on a vast scale, but it is contended that the propertied classes have been the chief beneficiaries. It has merely served to strengthen their hold upon our economic system. Ramsay MacDonald, Prime Minister in Great Britain's only socialist cabinet, after asserting that the capitalist system has "certainly solved the problem of production", goes on to show that "this wonderful system of production was quite unable to devise any mechanism of distribution which could relate rewards to deserts. . . . The result was that national wealth was heaped up at one end over a comparatively small number of people and lay thinned out at the other end over great masses of the population. At one end people had too much and could not spend it profitably, at the other end they had too little and never gained that mas-

tery of things which is preliminary to well-ordered life.”³ More vehement critics are fond of asserting that the capitalistic system pours untold millions into the coffers of the privileged few, while millions of propertyless workers have nothing but their daily wage, which is often pitifully inadequate to meet the contingencies of life.

Insecurity in status of workers. Still another criticism of competitive capitalism is that it is largely responsible for the economic insecurity of the worker. The individual as worker has no status in industry other than that afforded by the contracts to which he is a party. Since most of these are short-term contracts, he has no real permanent status in industry. The capitalist controls the job. The workingman must seek the job because he is obliged to earn a living. But the capitalist is under no legal obligation to take care of the workingman when his wage contract has expired. While he sometimes does so, this is an expression of his good-will rather than of any responsibility imposed upon him by the capitalistic system.

Overemphasis upon property rights. Finally, it must be said that throughout the criticism of the capitalistic system runs the constantly reiterated insistence that capitalism tends to emphasize property rights at the expense of human rights. Human welfare is said to be subordinated to the production of material wealth. In the United States the fourteenth amendment to the federal Constitution has become a quarry of defenses against the imposition of new burdens upon private property. As shown in an earlier chapter,⁴ the safeguard that no person shall be deprived of property “without due process of law”, the provision that no State shall “abridge the privileges or immunities of citizens of the United States”, and the prohibition laid upon the States of denying to any person within their jurisdiction “the equal protection of the laws” have been used deeply to entrench private property rights and to defeat measures looking to the protection of labor. Capitalism is motivated by the quest for profits; when merely human considerations interfere with profit-making, it is said that they are apt to be sacrificed. Excessively long hours at tedious or killing tasks; working conditions in crowded

³ *The Socialist Movement* (New York, 1911), p. 96.

⁴ Cf. Chapter XXXV, pp. 871-872.

factories that are prejudicial to safety and health; the exploitation of women weak in their bargaining powers and of children who ought not to be bargaining at all; wages that are wholly inadequate to meet most of the emergencies of life; irregular employment fluctuating with changes in the outlook for profits—these the critics of capitalism claim all bear witness to the emphasis which the system places upon property rights, often at the expense of human rights.

SOCIALISM AS A PLAN FOR ECONOMIC RECONSTRUCTION

To capitalism as a form of economic organization there are many alternative proposals, ranging all the way from the most complete socialization of all wealth, at the one extreme, to the most unrestrained individualism at the other. Of all the voices in the chorus of protest against capitalism, the most powerful is that of socialism.

Nature of socialism. The term "socialism" is properly used to designate any one of three things: (1) a proposed organization of economic society; (2) a political movement aiming at the attainment of the socialistic state; and (3) a certain body of economic principles or theories set forth by socialists as a philosophical basis of the socialist movement. It is the first of these conceptions that concerns us here, though the others will have to be considered in order to understand how the socialistic state is to be brought about.

The socialistic state. There is no unanimity of opinion among socialists as to the precise nature of the socialistic state. In consequence there are many contending socialistic groups. All, however, are united in opposition to private capitalism. What they all have in common is this: (1) insistence upon the substitution of collective ownership for private property in all means of production which afford the opportunity to exploit labor; (2) the substitution of some central authority controlling production for the present supposedly automatic control by competition. In a socialistic society the only important source of money income would be wages, which would be fixed by central controlling boards in accordance with some principle of their own adoption. Socialism is not opposed to capital, as is often represented; it is only opposed to the private ownership

of capital and seeks to abolish private capitalists who live and thrive by collecting interest, rents, and profits.

While socialists agree upon the abolition of private capitalism and the competitive régime, there is no such agreement among them upon either the precise form of collective ownership and control of the means of production or the way in which it shall be established. Upon these important issues socialists have split into many rival groups, some of which will be considered next.

The socialistic movement and socialistic theory. Socialism as a political movement, including all groups, numbers millions of adherents throughout the world. Even prior to the World War it was a force to be reckoned with in every industrial nation. Its most conspicuous triumphs, however, came during and after the war period, such as the Bolshevik Revolution in Russia in 1917 and the establishment of the German Republic in 1918 with a socialist as its first president. In the United States the Socialist Party has never won more than a few seats in Congress, but it polled 919,799 votes in the presidential election of 1920, representing 3.7 per cent of the total. To many of its followers socialism is a religion. It reveals to them a higher life, it points the way to the realization of a better social order, and it inspires them to give unstintingly of their time, energy, and substance for the advancement of the common cause.

This was markedly true of two of the earliest socialistic groups, which in the history of the movement are usually known as *Utopian socialists* and *Christian socialists*. The Utopians, represented by such men as Robert Owen, a wealthy and philanthropic factory owner in early nineteenth century England, and Babœuf, Cabet, Saint-Simon, and Fourier in France, were profoundly influenced by the ideas of the French Revolution. They were idealistic social reformers, believing in the perfectibility of human nature and the possibility of establishing an ideal economic order which, once established, could be permanently maintained. To the attainment of these ends they devoted themselves with religious fervor.

The economic program of these idealistic socialists was even more sweeping than that of present-day socialists: it was essentially communistic. By this is meant that they not only believed in the socialization of production goods (as modern socialists do) but also in the

common ownership of consumption goods.⁵ Numerous colonies based upon the communistic principles of the Utopian socialists were established in both Europe and the United States. Among the better known of these was Robert Owen's colony at New Harmony, Indiana (1825-1827), and the Brook Farm experiment (1841-1847) in Massachusetts.

The program of the Christian socialists, in general, was similar to that of the Utopian socialists. They exalted the brotherhood of man and believed that this Christian doctrine could only be adequately realized in a socialistic society. They pointed to the communistic society of the early Christians as an ideal. Christian socialists differ from the Utopian socialists in that they base their program upon definite religious convictions rather than upon mere idealistic aspirations.

The form of socialism, however, that has left altogether the deepest impression upon both the thinking and life of the world is associated with the name of Karl Marx and is commonly called *Marxian socialism*. Until the middle of the nineteenth century socialism had been Utopian. Karl Marx (1818-1883) and his associates, notably Friedrich Engels, sought to establish it upon a more realistic basis. To begin with they called themselves communists; later on their doctrines and movement came to be known as "scientific socialism" to distinguish them from the Utopian forms of socialism. In 1848 Marx and Engels issued the famous "Communist Manifesto", a clarion call to the workingmen of the world to unite and to throw off the yoke of the capitalists. It closed with the stirring words: "Let the ruling classes tremble at a communistic revolution. The proletarians have nothing to lose but their chains. They have a world to win. Working men of all countries unite!" Subsequently in 1867 Marx published his *magnum opus*, *Capital*, a book which has been called the Bible of the international socialist movement. In these two works the economic philosophy of socialism is developed.

⁵ It is exceedingly confusing to the uninitiated reader to find that the socialistic and communistic movements have exchanged names during the course of their development. As stated above, the early Utopian socialists were really communists. On the other hand the adherents of Marx, who have consistently advocated the socialization of production goods alone, were originally known as communists.

Marxian socialism has as its ultimate objective the collective ownership and management of the instruments of production, with the struggle of a class-conscious proletariat as the means to the attainment of this goal. Marx describes the evolution of economic society and professes to see the inevitable break-down of capitalism, which, he thinks, will be replaced by socialism. Marx's economic philosophy includes three main doctrines: the economic interpretation of history, the class struggle, and surplus value. According to the first, economic conditions exert a preponderant influence upon the course of human history. (One can of course subscribe to this proposition without endorsing socialism.) According to the second,

The history of all hitherto existing society is the history of class struggles.

Freeman and slave, patrician and plebeian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed, stood in constant opposition to one another, carried on an uninterrupted, now hidden, now open fight, a fight that each time ended, either in a revolutionary re-constitution of society at large, or in the common ruin of the contending classes. . . .

The modern bourgeois society that has sprouted from the ruins of feudal society, has not done away with class antagonisms. It has but established new classes, new conditions of oppression, new forms of struggle in place of the old ones.

Our epoch, the epoch of the bourgeoisie, possesses, however, this distinctive feature; it has simplified the class antagonisms. Society as a whole is more and more splitting up into two great hostile camps, into two great camps directly facing each other: Bourgeoisie and Proletariat.⁶

Between these two, according to Marx, a ceaseless class struggle must go on until the capitalistic bourgeoisie shall be overthrown by the propertyless proletariat. Finally, what keeps this class struggle going is the existence of surplus value, created by labor but withheld from labor by exploiting capitalists. Labor, Marx holds, creates all value and is justly entitled to the full product of its creation. In practice, however, labor gets only a part, which tends to be a subsistence wage. The rest is surplus value over and above wages and is withheld by the capitalist who controls the means of production. His income (interest and profits) is not due to any socially necessary functioning of the capitalist but is derived from the exploitation of labor.

The backbone of the socialist movement is made up of those

⁶ Opening paragraphs of Marx and Engels' *Communist Manifesto*.

whose articles of confession are drawn from this Marxian economic philosophy. Harsh as it seems to many in its emphasis upon inevitable class conflict resulting in the eventual overthrowing of the existing order, to many others there is something captivating about it, namely, the ideal of sympathetic coöperation. Both the realism of labor's daily struggle with capitalists and the idealism of an ultimate coöperative commonwealth have won adherents for Marxian socialism. Perhaps the most conspicuous political triumph of the Marxians was in Germany, where even prior to the World War the Social Democrats (a Marxian group) had become the dominant political party. It was they, too, who furnished leadership for the revolution of 1918 and organized the German Republic. Post-war difficulties, particularly of an international sort, rendered their program of socialization inoperative and led to the defeat of the party. Marxians have been numerous and influential in the political life of almost every industrialized nation. In the United States they dominate the socialist movement, but the movement itself has made no great headway in this country.

Many modern socialists, while subscribing in the main to the doctrines of Marx, disagree with him in regard to the way in which the ultimate socialistic order can best be established. They reject in particular his doctrine of an inevitable class struggle. Marx urged socialists not to compromise with capitalists. Modern socialists on the contrary are opportunists. They believe in taking part of the loaf now rather than to deny themselves until they can get it all. This opportunistic point of view is well represented by the *Fabian socialists*, a name properly given to the members of the Fabian Society organized in England in 1889, but sometimes also applied to adherents elsewhere of the principles for which the society stands. The Fabian Society itself, with a membership never exceeding a few thousand, but these mostly composed of "intellectuals", has had an extraordinary influence in England. Among its well-known members at one time or another in recent years were Graham Wallas, Sidney and Beatrice Webb, Ramsay MacDonald, Bernard Shaw, H. G. Wells, and Philip Snowden. Fabians are collectivists in principle but opportunists in procedure. They have coöperated with other parties in effecting economic and political reform legislation. They

emphasize gradual evolution rather than sudden revolution as the way leading to the ultimate establishment of the socialistic order. Within this order they leave room for much individual initiative in economic enterprise.

A comparatively recent form of socialism is known as *guild socialism*. It arose in England during the World War period. It differs from Marxian socialism principally in the form of control over economic life which it proposes. If economic society were organized in accordance with the ideas of the guild socialists, the state would be the owner of the principal means of production, but each industry would be managed, not by the state, but by the workers of each particular industry. Workers would be united in local industrial guilds, and these would be federated into national guilds and represented in a guild congress assembled for such coöperative direction of industry as might seem desirable. Alongside such a congress or parliament of the representatives of labor, guild socialists would permit the continued existence of present political parliaments, which largely represent consumers. The economic and the political organizations would in reality function as a bicameral legislature. Guild socialism is an interesting variation of the socialist program, but as yet it commands no political strength.

Ways of establishing the socialistic order. The preceding discussion of the socialistic movement and its underlying theories has suggested two distinctly different ways for the establishment of a socialistic society. One is the way of revolution, violent if need be. The other is the way of peaceful evolution with reliance upon legal modes of procedure. The former is sometimes the method of bullets; the latter is always the method of ballots. The one is direct in procedure and immediate in results; the other is indirect with deferred results. Under the influence of the French Revolution and the revolutions that spread over Europe in 1848, many socialistic thinkers thought of the social revolution that would usher in the socialistic state in terms of violent force. Gradually this idea was abandoned as they came to see that a revolution based upon a majority in an election and the subsequent use of legal methods gave promise of greater permanence than one based on illegal rebellion.

Assuming that socialists have been victorious at the polls, and that

they have come into control of the various branches of government, the problem remains of how to acquire for the state the industries that are privately owned. Extremists among socialists urge confiscation, the taking of private property for social purposes. To the proposal that such property-holders ought to be at least partly indemnified they reply: Why indemnify capitalists for taking away from them a special privilege to exploit—a privilege which they ought never to have had? More moderate socialists propose that the socialization of industries shall be brought about through the taxation of their owners. By imposing heavy property or income taxes upon them, and especially by levying progressive inheritance taxes and gradually abolishing the right of inheritance entirely, it would not take more than a few generations for private property in the important industries to disappear. Which of these methods, or any variation of them, might be adopted would depend very largely upon the peculiar development of the socialistic movement in any given country.

THE STRENGTH OF SOCIALISM

A movement that proposes so revolutionary an organization of our economic society, and that at the same time has commended itself so strongly to millions of people, must have within it certain undeniable sources of strength. The socialist movement has gathered strength from many sources and for many reasons, not all of which are closely related to the merits of the plan it espouses. But the plan, too, must have inherent merits to make it seem attractive. One of these outstanding merits is its emphasis upon a more scientific organization of production in contrast to the planlessness of the present system. Socialists, as shown earlier in this chapter, never tire of arraigning the wastes not only in the production of goods but also in their market distribution and utilization. In contrast to the shortcomings of the competitive régime they extol a system in which production shall be much more closely geared to consumption, the results of which should be the elimination of unusable surpluses in production, of periodic industrial depressions, and of unemployment. It is an attractive picture, particularly to those who are suffer-

ing injustice under the present system. The real point at issue, however, is whether men would be willing to forego some of their present freedom of choice as producers and consumers for the sake of having a more perfect adjustment between production and consumption. Defenders of our system of private capitalism argue that what maladjustments exist can largely be corrected without destroying the system.

A second strong feature of the socialistic proposal is its emphasis upon a more equitable distribution of income and wealth. Such emphasis, to be sure, is not an exclusive feature of socialism, but it is one of the most effective socialistic campaign arguments. Striking inequalities of income and wealth are apparent at every turn. While socialists do not seriously expect to be able to level such inequalities, they do hope to remove the more glaring differences. The means selected for the attainment of this end is the abolition of the private receipt of property income—interest, contract rent, and profits. Since in a socialistic society the income of all would be restricted to wages for services rendered, a much more equitable distribution of income and wealth could be brought about by fixing wages. Socialists say that as long as we have a system of private property and inheritance, in which some are born to economic ease and power while others know nothing but poverty and struggle, there can be no real equalization of opportunity. Genuine democracy, however, should provide opportunity for the fullest self-realization of all. Without it, democracy is a mockery. The argument is convincing to great masses of people. On the other hand, two questions may properly be raised in rebuttal: Is it reasonable to assume that socialism can “make good” in effecting a more equitable distribution of wealth? And further, even if it can, does socialism provide the best means of achieving this admittedly desirable end?

PRACTICAL DIFFICULTIES INVOLVED IN SOCIALISM

Ill-founded objections to socialism. Those who do not believe that the future economic society should be socialistic instead of capitalistic are quick to point out what they regard as insuperable practical difficulties in the socialistic program. Some of the denuncia-

tions hurled against socialism, it must be admitted, however, are not supported by any careful analysis of socialism. Blind partisans of the existing economic order, wishing to damn socialism with the unthinking, sometimes call it anarchistic. Nothing could be further from the truth. About all that socialism and anarchism have in common is opposition to capitalism; their programs of economic reconstruction are diametrical opposites.

Knowing the strong hold which religion and the family have upon the great masses of people, champions of capitalism sometimes argue that socialism will undermine religion and destroy the family as a social institution. Whatever the views of individual socialists, or individual capitalists for that matter, on these subjects may be, it is a libel on socialism to say that it contemplates the abolition of either organized religion or the monogamous family.

Again, it is often said that socialism implies the negation of liberty, a statement designed to arouse the opposition of every liberty-loving individual. But what is liberty? If liberty merely means exemption from restraint, it must be admitted that there will be less of such negative liberty under socialism than there is today in capitalistic society. But if liberty implies the possession of means for the realization of ends, it is possible that there may be more such positive liberty for larger numbers of people in a socialistic society than there is today.

It is also commonly argued that socialism contemplates the abolition of all forms of private property, which statement is calculated to arouse the opposition of all who like to have some goods that they can call their own. The argument is of course an exaggeration. While socialism proposes to abolish private property in the most important forms of capital, it does not propose to do so in consumption goods, nor even in such capital goods as cannot be used to exploit labor.

Closely akin to the last argument is the contention that socialistic society would be hampered by inadequate accumulation of capital. While there may be some truth in this objection, it does not necessarily follow that the objection is well founded. Whether or not there would be adequate capital for the purposes of socialistic society would depend entirely upon the way in which production

would be managed. If socialistic managers should fail to show wisdom in setting aside part of the annual net income as capital, or if they should yield to a popular clamor to distribute all income for consumption purposes, socialistic society would indeed soon find itself embarrassed by lack of capital. But it must be conceded that wise management, concerned not only with present needs but also with the future welfare of society, could avoid this danger.

Difficulty of maintaining and increasing wealth production. Ill-founded as are the previous objections to socialism, there are some very real and formidable difficulties in the socialistic program for the reconstruction of economic society. Basic among these is the difficulty of increasing, or even maintaining, wealth production. It is common among socialists to express high hopes that hours of work can be materially shortened and incomes be greatly increased, without at the same time showing how the present scale of wealth production will be either maintained or increased. It is the hope of large personal gains that drives the capitalistic managers of industry at top speed in the production of wealth. With the elimination of personal profits in socialistic society, will there be a sufficiently strong inducement to call forth the greatest productive energy of both the leaders and the rank and file? As for the leaders, will the "laurel wreath" of social recognition prove as stimulating as the hope of pecuniary gain? Much can be said in favor of the contention that it will, for even now many men are driven more by the desire for recognition and distinction than by the desire for wealth. As for the great mass of ordinary men placed in less conspicuous positions, it is very doubtful that such a motive could be relied upon to call forth their greatest productive energy. The assurance of definite status and fixed income would doubtless cause many men to relax in their productive efforts. One knotty problem, then, that socialistic society must solve in order to ensure necessary production is the problem of maintaining both discipline and efficiency.

A problem akin to this problem of maintaining the efficiency of the human factor in production is the problem of properly providing for the depreciation of capital and thus of maintaining its efficiency. With insistence by the workers that wages shall be as high as possible, socialistic leaders, knowing the political strength of the

masses, will be under strong pressure and temptation to distribute earnings as generously as possible. In such a situation, as in the case of some badly managed private enterprises, there is the risk that inadequate provision will be made for the maintenance, depreciation, and obsolescence of capital. Tomorrow's capital account is apt to be drawn upon to meet the consumption demands of today.

Whether socialism will commend itself to men as a form of economic organization superior to regulated capitalism will doubtless turn on its ability or inability to maintain and increase the level of wealth production. The redistribution of existing wealth will prove of no permanent benefit without the efficient and steady maintenance of wealth production.

Difficulty of avoiding the evils of bureaucracy. Many there are who believe that the Gordian knot of socialistic society is the difficulty of avoiding the evils of bureaucracy. Socialism involves the substitution of the judgment and initiative of governmental officials for those of the individual. Much of the world's experience with the governmental management of economic enterprises, and certainly the socialistic experiments that have been tried, support the contention that socialism inevitably tends to become bureaucratic. If we could be assured that the executives and administrators of the socialistic régime would only be men of the highest ability and integrity, there would even so be no particular cause for alarm. But in an economic democracy what reasonable hope is there that men best qualified by training and experience to manage our economic enterprises would be placed in positions of power? Is it not altogether probable that elections to the strategically most important positions would be won by men who understood the political art of appealing to the mass of voters rather than by men trained for economic leadership? Political democracy bears witness to the apathy of voters and its dire consequences. Is it reasonable to assume that human nature will be greatly changed if we substitute a socialistic organization for the prevailing capitalistic system? Those who fear the evils of a socialistic bureaucracy revolt against the possibility of dictation as to what goods shall be produced. They also fear that such a bureaucracy will stifle originality and repress individuality. Genius does not usually flower early in life. Will socialistic leaders

be competent to decide who has the "divine spark" within him, furnishing the necessary educational opportunities for some and closing the doors of opportunity for others? The prospect is not very reassuring. It places tremendous powers and responsibilities in the hands of a relatively small number of officials. The present system has the merit of no such bureaucratic concentration of power over the fate of potential leaders and geniuses.

Difficulty of agreeing upon an equitable standard of distribution. A third Herculean task of socialistic society is presented by the difficulty of agreeing upon a generally acceptable standard of income and distribution, at once just and sufficiently stimulating to evoke the best efforts of all. Since socialism contemplates the abolition of the private receipt of interest, rent, and profits, the socialistic problem of distribution resolves itself into the question: Upon what basis shall wages be fixed? In answering this question socialists are far from unanimous. Some have proposed the principle of *need*, a very lofty ideal often realized in the family, but which in general practice would virtually have to be equality. The needs of individuals are so largely a matter of environment and habit that the only way in which socialistic administration could satisfy the masses would be by treating all alike. Others have stressed the principle of *sacrifice*, saying that wages ought to be adjusted to the duration and disagreeableness of the work. If all jobs were equally agreeable or disagreeable, then whatever wage differences are recognized would depend solely upon the time spent in labor. To apply the principle of sacrifice it is necessary to assume that all men are free to choose whatever occupation they will. There is no way of telling which jobs are the more disagreeable except by observing the free choices of men. But men are so unequal in capacity that it is an obvious absurdity to assume the existence of perfect freedom of choice. A third principle of distribution, in fact the most commonly accepted principle of income distribution in capitalistic society, is that of *productivity*. This principle is based upon the idea that there are differences in the capacities and productive efficiencies of men, and that in consequence there must be differences in the rewards offered, if the best efforts of all are to be called forth. Socialists recognize the force of this principle but shrink from accepting its full

implications as a wage base in a socialistic society. To do so might mean to reestablish some of the very differences in income which those socialists who have a passion for equality have severely criticized.

It would be partisan to assert that socialism is foredoomed to failure. It is only fair to point out, however, that unless socialism can greatly strengthen non-pecuniary incentives to economic effort, its chances of success are not very great. With the private receipt of interest prohibited, some other incentive to capital accumulation must be developed. With contract rent forbidden and productive land all socialized, some other stimulus than pride of ownership must be furnished for the preservation and development of the land. With the lure of profits gone, some non-financial motive must be supplied to evoke the best efforts of men who now direct our great industries. It is not impossible that all this can be done, but it is by no means as easy and probable as socialists would have us believe. Certain it is, on the contrary, that socialists greatly underestimate the effectiveness of existing economic motives in supplying men with the goods they desire in the gratification of wants. Until men are convinced that socialism has something better to offer than capitalism as a system of wealth production, as a means of enlarging the economic liberty of the individual, and as an agency for improving the distribution of income without diminishing productive efficiency, they will cling to capitalism. They will seek to modify it in order to improve it, rather than to supplant it with socialism or any other radical form of economic reconstruction.

THE PLAN OF COMMUNISM

Communism sometimes in its objective and again in its procedure presents an even more revolutionary program than does socialism. Early plans of communism differed from socialism in objective; present-day communism has the same objective but differs in procedure. Early communism was distinguished from socialism by its broader objective; for while socialism would do away with private property only in the more important forms of production goods, communism went further by demanding the abolition of private

property in consumption goods as well. Such communism represents the most extreme form of domination of the many over the one. All goods are to be owned in common, for private property is abolished. Each is to produce in accordance with his capacities and to consume in accordance with his needs. In practice, this would come close to meaning equality of personal income.

Communism is one of the oldest dreams of idealistic thinkers. From Plato's *Republic* to H. G. Wells' *New Worlds for Old*, the literature in criticism of the prevailing economic system contains many fanciful pictures of what human society might be like under idealized conditions of socialization. Scores of actual communistic experiments have been tried. Most of these have been short-lived; where communistic colonies have lasted a generation or more, they have invariably had a religious foundation. The communistic society established by Robert Owen at New Harmony, Indiana (1825–1827), and the spectacular Brook Farm, Massachusetts, Colony (1841–1847) based on the principles of Fourier are conspicuous examples of short-lived non-religious communities. The Amana Society of Iowa, founded in 1843, is a religious society that is still flourishing.

Communism of the type that includes the socialization of consumption goods as well as of production goods presents a highly altruistic program, but it also makes very heavy demands upon human nature. Its success depends upon the degree to which men will be willing to share everything they have with everybody else. It calls for a high degree of regimentation. The analogy so frequently drawn from the family, in which love is the guiding principle, is misleading when applied to communistic society because there is a vast difference between sharing everything with a small number of people bound by ties of love or with millions of people bound only by economic ties. It is hard to love a million in the way in which one can love a few.

Modern communism, as developed in Russia, differs from socialism more in the procedure of attaining the state of collective ownership and management than in the objective itself. Present-day communism is more suggestive of a method of action, namely, direct revolution by means of force, than it is of any specific resulting form

of economic organization. When the Russian Bolsheviks, who were the majority group of the Marxian socialists, were successful in their revolution of November, 1917, they adopted the name of the Communist Party. Under the leadership of Lenin and Trotsky they set up a dictatorship of the proletariat largely based on force and terror. In Russia revolutionary socialism turned communistic. Dictatorships, communists say, are necessary during the transition from a capitalistic to a communistic society, but eventually they are to be replaced by democratic forms of control. Violent revolution, a ruthless dictatorship on behalf of the proletariat, the socialization of production goods, virtual equality of income, which would give to each substantially the same claim on consumption goods—these represent the tactics and objectives of the communist movement.

Nearly twenty years have passed since communism was established in Russia. Profound changes have occurred in the economic and political life of the country. The expectations of the capitalistic critics and of the dispossessed classes that Russian communism would soon flounder and crash on its own mistakes have not come true. The movement has steadily gained in strength, and today the Union of Soviet Socialist Republics (U.S.S.R.) seems securely established in place of the quasi-feudalistic state that once was czaristic Russia.

The economic and political government of Russia is built up of soviets, which are local councils of workers. The soviet dominates the life of city and rural village. Urban and rural soviets are federated into Congresses of Soviets representing larger areas such as districts, provinces, and states. The All-Union Congress of Soviets, meeting biennially, is the supreme legislative body of Russia. Although a widely representative body, it is too large and unwieldy for effective action. Its real legislative work is done through a Central Executive Committee, which is not a committee in the usual sense, since it is a body larger in size than the United States Congress. It is a bicameral body, including a Union Council composed of delegates from the All-Union Congress and a Council of Nationalities comprising delegates from the seven constituent republics into which the old Russian Empire is now divided. It functions through two subordinate bodies: the Presidium of twenty-one mem-

bers for matters requiring legislation, and the Council of fourteen People's Commissars in matters of administration. The latter body corresponds to the cabinet of most Western nations. The Government of Soviet Russia is controlled by the Communist Party, which has approximately 3,000,000 members.

Communism in Russia has passed through a number of stages. The years immediately following the World War witnessed the development of a stern and ruthless dictatorship, which communists say was necessary to protect their movement against counter-revolution from within and possible attack from without. To the world at large this phase of the movement is typified by the OGPU or secret police. Imprisonment, exile, and executions were common. There was no freedom of speech, press, or assembly. Large landholders and industrialists were expropriated. Nationalization of natural resources and developed capital occurred without compensation to their owners. Labor was conscripted as soldiers are drafted in time of war. The currency was inflated until it became worthless. External debts were repudiated, with consequent lack of recognition of the new régime in Russia by foreign governments. Economic chaos was unavoidable, at least temporarily.

Realizing their mistakes communist leaders headed by Lenin in 1921 adopted a new economic policy (popularly called NEP), which has generally been regarded as a strategic retreat from communism for the purpose of consolidating position. It marked a temporary compromise with private industry in order more quickly to effect the economic rehabilitation of the country. Although there was no change as far as the socialization of the land, large industries, transportation, and banking is concerned, private initiative in industry, trade, and agriculture was again permitted alongside of collective operation. The coöperatives were allowed to function. Conscription of workers ceased. Money wages largely on the basis of collective bargains were restored. The seizure of grain and other farm products from the peasants was abandoned, and a policy of taxing the peasants' production was substituted. Economic concessions were granted foreigners in order to attract foreign capital, though this did not succeed to any great extent. The currency was stabilized. Russian economic conditions gradually improved. By 1928 the pre-war level

of production had been reached. After a large measure of rehabilitation had been effected the communists launched a new economic offensive directed to drive the private operator from the field. Socialization was again accelerated.

Under the advice of a State Planning Commission (a body of economic and technical experts known as the "Gosplan") a series of measures and plans was undertaken to coordinate and speed up state production. The first so-called "Five-Year Plan" was put into operation in the fall of 1928. It aimed particularly at the greater socialization and increased productiveness of agriculture and the capital-goods industries. The objectives were substantially realized. The second Five-Year Plan is more directly concerned with the increased productiveness of the consumer-goods industries, and the raising of the standard of living of the Russian people, which still leaves much to be desired.

Whatever one's opinion of the Russian plan of economic organization may be, it seems tolerably clear that communism in Russia, in spite of the great size of the country with an area more than twice that of the United States and a population nearly a third larger, is well on the road toward realizing its own ultimate objectives. The rapid progress in industrialization of the country, the mechanization and collectivization of much of Russian agriculture, and the redistribution of population between agriculture and industry, and between small-scale peasant farming and large-scale collective farming, give evidence of this.

THE PLAN OF FASCISM

An economic and political movement of recent origin, which runs counter to communism, is known as fascism. It has burst forth with great power in Italy under Mussolini and in Germany under Hitler, but there have been manifestations of the movement in other countries as well. Chaotic post-war conditions and the failure of existing governments to bring order out of chaos with reasonable dispatch stimulated the growth of a movement that promised the quick restoration of order through armed force and dictatorial methods. Fascism has had its most complete development in Italy since the

fascist ("Black Shirt") march on Rome in October, 1922, which made Mussolini the virtual dictator of the country. Its main support has come from the middle classes. Beginning as a movement of armed, marching, and sometimes fighting bands (the *fasci di combattiments*, from which the name "fascism" is derived), without clear-cut economic objectives or program, the fascist movement in Italy has gradually developed a distinctive program of action and philosophy, political, economic, and social. In its economic aspects fascism may be described as a plan which retains private property in production goods but makes the investment and management of capital subject to state control. The capitalistic organization of economic life, according to fascism, is thoroughly defensible, but inefficiency and waste are intolerable. The private capitalist must conduct his business so as to promote the best interests of the state. If he fails, the state may apply whatever corrective measures are necessary.

Fascism both in Italy and in Germany is intensely nationalistic. This spirit of nationalism is the heritage of the World War and is nurtured by the expectation of future wars. The interests of the nation are paramount; the interests of individuals must always be subordinate to and merged with the greater interests of the state. (This sounds like an echo from sixteenth century mercantilism.) The state is thought of as eternal, an "unbroken chain of generations". To the fascist the state was in the beginning, is now, and ever shall be. To him the state or nation is a sort of economic and political Nirvana in which the individual must lose himself. The identification of the interests of the individual with those of the state is the essence of fascist theory.

In the political field fascism is the negation of democracy. Fascist government is absolutistic. Democracy is considered an outmoded institution. Power is vested in the hands of one man—*Il Duce* or *Der Fuehrer*—or at most in a small group of men who are considered (or consider themselves) most competent to govern. Parliamentary government as known in Great Britain or representative government as developed in the United States is foreign to the fascist state.

In the economic sphere Italian fascism emphasizes the corporative or guild state. It symbolizes the union of the political state with

private economic enterprise. Every branch of economic activity—industry, agriculture, commerce, transportation, banking, the professions—is organized into distinctive corporations or syndicates. This idea was doubtless borrowed from syndicalism, with whose economic philosophy Mussolini is intimately familiar. Indeed fascism has often been described as a sort of marriage in which syndicalism and nationalism are the contracting parties. Each corporation is headed by a council representing employers, employees, technicians, and consumers. The Fascist party is also directly represented. Within each corporation there are two syndicate structures: syndicates of employers and syndicates of employees, organized locally, provincially, and nationally. The corporation councils are the immediate governing bodies; they have the power within their own fields of jurisdiction to make regulations which, like laws, are binding upon all. There is a National Council of Corporations, headed by Mussolini, through which the government coördinates the activities of the several corporations. Over all stands the Ministry of Corporations, which shapes economic policies and decides controversial issues not otherwise settled. Through this corporative and syndicalistic set-up Italian fascism seeks to control production and to develop a planned economy. While private enterprise is relied upon as the most efficient means of production, the investment of new capital is subject to the control of the Ministry of Corporations in the interest of rationalized and balanced production.

There is no room within the corporative state for class antagonisms. Classes are legally recognized and provided with organizations through which they can express themselves, but they must coöperate so that the supreme ends of the state may be realized. If the classes conceive their interests narrowly and fight for them, the state must step in to compel coöperation. Strikes and lockouts, for example, are prohibited by fascist law. There must be peaceful settlement of industrial disputes.

American capitalism, Russian communism, and Italian fascism typify three contemporary organizations of economic and political life within the framework of an industrialized society. Whether the fascistic organization, with its extreme nationalism, its sacrifice of individual liberty for the glory of the state, its substitution of dic-

tatorship for democracy, and the erection of a corporative state for the purpose of greater productive efficiency and the elimination of economic strife, really represents any contribution to the economic progress of the world, as Mussolini confidently believes and proudly asserts, the future alone can reveal. The United States and Great Britain, in contrast to Russia or Italy, are seeking to preserve their traditional and fundamental political institutions and to shape their economic life on the plan of a liberalized and socially controlled capitalism.

THE PLAN OF SYNDICALISM

A very different plan from either socialism or communism is that of syndicalism.⁷ Syndicalism makes common cause with socialism and communism in opposition to capitalism, but beyond this the community of interest ceases. It is more closely related to anarchism than to socialism. While both socialism and communism exalt the place of the state in economic organization, syndicalism would ultimately dispense with the state. The political state, it is said, represents the interests of consumers, not of producers. While the socialist wants ownership and control of the more important industries by the state, the syndicalist wants ownership and control of industry by the workers themselves. One has only to imagine our large industries, like the railroads, owned and operated by the workers for their own benefit to have a picture of what syndicalistic society would be like. Economic society would be composed of autonomous industries. These self-governing industries would be federated for the purpose of taking any common action that was in the general interest. In such a scheme of things the state would play a very minor rôle and would gradually disappear.

Syndicalism differs from socialism not only in the economic organization of industry which it proposes but also in the means for reaching its ends. Socialism, for the most part, stands for orderly political action; syndicalism champions what is known as direct action, including sabotage, the general strike, and the boycott.

⁷ The word "syndicalism" is derived from the French *syndicat*, meaning "trade-union".

Syndicalism as a movement exercised its greatest influence in France and Italy early in this century, for a time permeating the entire French labor movement. In the United States, syndicalistic principles are expressed in the program of the Industrial Workers of the World, which has not, however, had any very considerable effect upon the American labor movement. While the syndicalistic emphasis upon direct action rather than political procedure, and upon industrial control by producers rather than by the community, has had its appeal to some reconstructionists, the great majority have been unwilling to abandon the state as the most effective agency for the economic reorganization of society.

THE PROPOSAL OF ANARCHISM

At the extreme left of all the proposals for the reconstitution of economic society stands anarchism. Anarchism is often unwittingly confused with anarchy, and popularly sometimes associated with violence. It never stands for the former, and not necessarily for the latter. Anarchy means lawlessness in the sense of utter confusion. Anarchism stands for order based upon voluntary coöperation. As to violence, some anarchists (revolutionary anarchists like Bakunin and Kropotkin) countenance it as a means of establishing the anarchistic order, while others (philosophical anarchists like Tolstoi) denounce it, extolling the doctrine of non-resistance in its stead and relying upon education as the means of attaining their end. Anarchists are really pacifists, for they are opposed to all compulsion.

Anarchism, from one point of view, is the diametric opposite of socialism. Unlike socialism, it places the rights and interests of the individual above those of society. It is individualism raised to the *n*th degree. The socialist would greatly extend the functions of government; the anarchist would abolish government. Anarchism would do away with law and political regulations, permitting every man to become a law unto himself. It does not oppose organization, but insists that organization shall be voluntary rather than compulsory. Anarchism, then, may be defined as a plan of economic organization that would dispense with the state and substitute voluntary coöperation for government by compulsion. It would also supplant

private property with possession in common by the members of any freely coöperating group.

While anarchism is popularly associated with terroristic methods of revolution, its underlying philosophy is really based upon a very high conception of the perfectionistic possibilities of human nature. Kropotkin, for instance, who advocated revolutionary but highly idealistic anarchism, held that "mutual aid" is as great a principle of survival as the Darwinian principle of selective struggle. If men could only be persuaded to do away with government, he argued, "mutual aid" could be relied upon to give us better results than the present compulsory methods. The basic difficulty, however, with anarchism as an economic program lies in the conception of human nature, which is its major premise. Men may some day—perhaps in a future anarchistic Utopia—be sufficiently intellectualized and self-disciplined that everyone can be trusted to do his full duty and to play fair with all his associates. Until that far-off day breaks, human nature being what it is, we can hardly afford to take chances with a system that would abolish government and dispense with all forms of compulsion. Since most people still need a large amount of social control, it seems better that we "bear those ills we have, than fly to others that we know not of".

INDEX

- Ability-to-pay,
 - measure of, 714-715
 - principle in taxation, 710-713
- Acceptances, 298-303
- Accident insurance, 403-405
- Acquisitive capital, 46-47, 96, 108
- Adams, Thomas S., on taxation, 705
- Ad valorem tax, 719-720
- Advertising, social stimulation of
 - wants and, 669-670
- Agio theory of interest, 538-539
- Air transportation, 380-381
- Allied debts,
 - amount of, 764
 - cancellation of, 765-767
 - funding of, 767
 - problems in payment of, 767-771
- American Experience Table of Mortality, 398
- American Federation of Labor, 143-148
 - government, 145
 - membership, 143-145, 146
 - origin, 143
 - purpose, 145, 147
 - strength and weakness, 147-148
- American Steel Foundries Company
 - case, 193-194
- American Telephone and Telegraph Company,
 - capital and surplus, 72
 - collateral trust bond illustrated, 99
 - common stock illustrated, 102
 - income statement illustrated, 107-108
 - stockholders, 72, 89
- American Woolen Company, profit and
 - loss statement, 581
- Anarchism,
 - and socialism, 933
 - proposal of, 933-934
- Anderson, Benjamin M., Jr., on quantity theory of money, 611
- Appalachian Coals, Inc. case, 827-830
- Arbitration,
 - compulsory, 210-214
- Arbitration, *continued*
 - voluntary, 204-206
- Australasian experience with compulsory arbitration, 211-212
- Bank credit,
 - and business activity, 629-630
 - expansion and contraction as explanation of business cycles, 629-631
 - expansion of through government borrowings, 757-758
 - use of in loans, 543-544
- Bank for International Settlements, 775
- Bank holiday in the United States, 340, 348
- Bank of the United States, First and Second, 322
- Bank reserves, importance in business cycle, 629-630
- Bankers' bills, use in foreign exchange, 364-366
- Banks,
 - American banks classified as to source of legal power, 307-308
 - branch banking, 309
 - chain banking, 309
 - federal reserve banking system, 322-346
 - functions of banks, 310-320
 - group banking, 310
 - illustrative statement, 318
 - national banks, 322-323
 - origin, 305-307
 - reserves, 320-321
 - solvency and liquidity, 320-321
 - unit banking, 308-309
- Barter, limitations of, 253-254
- Bears and bulls, 435-437, 445
- Behaviorism and mentalism, 5
- Benefits-received principle in taxation, 709-710
- Bimetallism,
 - alleged advantages, 282-284
 - assumptions, 284-286

- Bimetallism, *continued*
 experience of France, 286
 experience of United States, 286-293
 means of controlling business cycles, 634
 meaning, 282
 presidential campaign of 1896, 290-291
 Thomas Amendment to Farm Relief Act of 1933, 291
- Black-list,
 defined, 184
 legal status, 199-200
 use, 184
- Bland-Allison Act of 1878, 289-290
- Board of Governors of Federal Reserve System, 323-324, 344-345
- Board of Trade, Chicago, 433-439
- Böhm-Bawerk, Eugen,
 on Agio theory of interest, 533, 538-539
 on roundabout production, 47-48
 on technical superiority of present goods, 533
- Bolshevism, 927-929
- Bonds, types of, 97-98
- Boycotts,
 defined, 179
 effectiveness, 180-181
 legal restraint of, 194-199
 origin, 179
 primary vs. secondary, 179-180
- Brassage, 259
- Building and loan associations, 686-687
- Bulk-line costs, 493
- Bulls and bears, 435-437, 445
- Bureaucracy, under socialism, 923-924
- Business, nature of, 82
- Business cycles,
 control of, 633-639
 course of, 617-624
 recurrence of, 614-617
 theories of, 624-633
 unemployment and, 415-416
- Business cycles, control of,
 by control over credit, 636-638
 by control over currency, 634-636
 by controlling production, 638-639
- Business cycles, periods of,
 crisis and recession, 620-621
 depression, 621-622
 prosperity, 618-620
- Business cycles, *continued*
 recovery, 622-624
- Business cycles, theories of,
 changes in business psychology, 625-626
 expansion and contraction of credit, 629-631
 overproduction and underconsumption, 626-628
 oversaving and overinvestment, 628-629
 prospects of profit-making, 631-633
 weather and climate, 625
- Business psychology, changes in as explanation of business cycles, 625-626
- Business taxes,
 ad valorem, 719-720
 capital stock, 720-721
 franchise, 721-722
 gross earnings, 720
- Business variations, types of, 617
- Buyer's monopoly, 481
- Canadian Industrial Disputes Investigation Act, 206-208
- Capital as a factor in production, 44-49
 distinction between produced capital and land, 45-46
 forms of produced capital, 44
 meaning, 44
 relation of productive to acquisitive capital, 46-47
 replacement of capital, 49
 roundabout character of capitalistic production, 47
- Capital, conditions for accumulation, 26, 72
- Capital, economic power of, 26-27
- Capital-poverty, 24-25
- Capital stock, taxation of, 720-721
- Capital value, methods of determining, 109-112
 cost of reproduction, 111
 earning capacity, 111-112
 historical cost, 109-110
 prudent investment, 110
- Capitalism,
 achievements of, 907-908
 anarchism as a substitute for, 933-934
 control of, 905-906
 criticisms of, 908-913
 fascism and, 929-932

- Capitalism, *continued*
 foundations of, 899-905
 socialism as a substitute for, 913-929
 syndicalism as a substitute for, 932-933
- Capitalism, achievements of,
 lower costs, 907
 reward of individual initiative, 908
 wealth production, 907
- Capitalism, criticisms of,
 development of monopolies, 911
 failure of competition as regulator, 911
 inequitable distribution of wealth, 911-912
 insecurity of workers, 912
 overemphasis upon property rights, 912-913
 wastefulness, 909-911
- Capitalism, foundations of,
 free enterprise and free contract, 904-905
 inheritance, 903-904
 private property, 899-903
- Capitalism, substitutes for,
 anarchism, 933-934
 socialism, 913-929
 syndicalism, 932-933
- Capitalistic combinations, 120-138
 economic conditions favoring, 121-127
 forms, 127-135
 horizontal vs. vertical combinations, 121
 movement toward, 120-121
 purposes, 135-138
- Capitalistic control based on private property, 70-73
- Capitalization,
 defined, 109
 reasonable capitalization in relation to capital value, 109-112
- Carver, T. N., on acquisitive activities, 87
 on control of "big business," 816
- Chain-stores, 125
- Child labor legislation,
 declared unconstitutional, 892-893
 federal, 892-893
 National Recovery Administration and, 894
 need of, 891-892
 State, 893-894
- Christian socialists, 915
- Clark, John Bates, on value, 453, 455
- Class legislation, and labor legislation, 872-873
- Class struggle, 916-917
- Classical economists, on general overproduction, 626
- Clay, Henry, on law of demand and supply, 458
- Clayton Anti-trust Act,
 amendment of Sherman Anti-trust Act, 825
 and labor, 195-198
 Appalachian Coals, Inc., case, 827-830
 incorporate stockholding and interlocking directorates prohibited under conditions, 827
 price discriminations prohibited, 826
 tying clauses in contracts prohibited, 826-827
- Clearings and collections under federal reserve banking system, 340-343
- Closed shop, 159-161
 contrasted with open shop, 159
 justification, 159-160
 objections to, 160-161
- Collective bargaining,
 contrasted with individual bargaining, 154-155
 effects of, 156-157
 legal right to, 157-158
 nature of, 153-154
 strength of, 155-156
- Combinations,
 legal doctrines pertaining to, 817-819
 prevention, policy of, 835
 public policies toward, 834-836
 regulation, policy of, 835-836
 suppression, policy of, 834-835
- Commercial credit,
 meaning, 296-297
- Commercial credit instruments,
 bankers' bills or acceptances, 301-303
 promissory notes, 297-298
 trade bills or acceptances, 298-301
- Commodity markets, 433-439
 functioning of, in determination of commodity prices, 456-461
- Commodity theory of money, 608
- Commons, J. R. and Andrews, J. B., on police power of state, 870

- Communism,
 - early, 925-926
 - in Russia, 926-929
 - plan of, 925-929
- Communist Manifesto*, 915-916
- Company unions, 224-225
- Comparative costs, law of, 353-357
- Comparative costs, principle of, as basis of free trade policy, 803-805
- Compensated dollar, means of controlling prices and business cycles, 635-636
- Competition,
 - and interest determination, 546-549
 - and price determination, 459-460
 - and rent determination, 566-567
 - and wage determination, 502, 515-519
 - as means of regulating production, 905-906
 - elimination in combinations, 136
 - failure as regulator of capitalism, 911
 - importance of, under capitalism, 905-906
- Competitive struggle, 15-16
- Conciliation, 201-202
- Conflict, sources of,
 - industrial, 171-175
 - dissatisfaction with job, 171-173
 - dissatisfaction with rewards of job, 173-174
 - dissatisfaction with efficiency of labor and management, 174-175
- Conspiracy, doctrine of,
 - criteria testing conspiracy character of combinations, 189-190
 - restraining influence in industrial conflict, 188
- Consumption,
 - affected by diminishing utility, 644-645
 - affected by variety and harmony of goods consumed, 645-646
 - brands and, 653-654
 - custom and, 668
 - destructive, 644
 - factors affecting, 658-672
 - final, 643
 - harmful, 643-644
 - interdependence of production and, 656-657
 - limited by technology of production, 659-660
- Consumption, *continued*
 - luxuries and, 663-667
 - marketing methods and, 653, 669
 - measurement of, 647-651
 - production guided by, 652
 - producers' influence upon, 653-655
 - size of income and, 660-663
 - social stimulation of wants and, 668-670
 - social control of, 670-672
 - style changes and, 654-655, 668
- Consumption loans, 531-532
- Consumption taxes,
 - federal customs duties, 725-726
 - federal excise taxes, 723-725
 - gasoline tax, 726-727
- Contract,
 - definition of, 905
 - importance of in capitalism, 904-905
- Contract, freedom of, interference with in labor legislation, 872
- Controlling introduction of machinery, labor-union policy of, 168-170
- Coronado Coal Company case, 142, 191-193
- Coöperative marketing, 432-433
- Corporations,
 - advantages, 92-94
 - capital and capitalization, 108-112
 - capital and securities, 96-101
 - charter illustrated, 118-119
 - disadvantages, 94-96
 - establishment, 89-90
 - financial statement, 101-106
 - government, 91-92
 - importance, 87-89
 - nature, 87
 - operating statement, 106-108
 - over and under-capitalization, 112-118
- Corporative state, in Italy, 931
- Cost of production,
 - determinant of supply, 472-474
 - fixed and variable, 489-490
 - marginal costs of production, 488-489, 491-493
 - subjective price determined by, 472-474
- Craft-unions vs. industrial unions, 140-141
- Credit,
 - acceptances, 298-303
 - bases of personal credit, 303-304

- Credit, *continued*
 commercial, 296-297
 commercial credit instruments, 297-303
 conversion of personal credit into
 bank credit, 304-305
 investment, 295-296
 nature, 294
 use in exchange, 80, 294-295
 use in production, 79-80, 294
 Credit control, as means of controlling
 business cycles, 636-638
 Credit economy, 79-81
 Credit expansion and contraction, as
 explanation of business cycles, 629-631
 "Crime of 1873," 289
 Crisis,
 phase of business cycle, 620-621
 sun-spot theory of, 625
 Custom,
 and interest determination, 529
 and price determination, 459
 and rent determination, 567
 and wage determination, 501
 Cyclical movement, of business, 617-618
- Danbury Hatters' case, 194-195
 Davenport, H. J., on margins as never
 exclusive price determinants, 474
 Dayton-Goose Creek Railway, decision
 of Supreme Court *in re* recapture
 of earnings, 851
 Dawes Plan of reparations payments,
 772-774
 Dealing in futures in commodity mar-
 kets, 434-437
 Dealing on margin, 446
 Debts, foreign, transfer problem, 761-762
 Debts, public,
 cancellation of, 764-777
 distribution of in U. S., 753
 means of paying, 759-761
 repudiation of, 763-764
 security of, 762-763
 size of, 750-753
 State and local, 753
 Debts, war,
 cancellation of, 764-771
 funding agreements, 767
 means of paying, 767-771
- Demand and supply,
 curves, 484-486
 Henry Clay on, 458
 interdependence of, 474-476
 law of, 457-458
 schedules, 483-484
 Demand for agricultural land,
 differential productivity and, 555-556
 meaning and sources, 554-555
 productivity and, 556-564
 Demand for consumers' goods,
 determinants of, 461
 law of diminishing utility and, 463-464
 marginal utility and, 462-469
 market, 461
 potential, 461
 schedules and curves, 483-486
 subjective prices and, 464-469
 Demand for labor,
 curves, 517-519
 determinants of, 503-504, 515
 law of diminishing productivity ap-
 plied to labor, 506-507
 marginal productivity and, 507-512
 meaning, 503-504
 physical vs. value-productivity, basis
 for, 505-506
 productivity as a specific determi-
 nant, 504-512
 Demand for loanable funds,
 curves, 546-549
 law of diminishing productivity re-
 lated to, 534
 marginal productivity and, 534-535
 meaning, 530-531
 private consumption loans, 531-532
 production loans, 532-535
 public consumption loans, 532
 Deposits,
 derivative, 315-317
 primary, 315-317
 receiving bank, 311-312
 Depressions,
 causes of, 624-633
 history of in United States, 614-617
 phase of business cycle, 621-622
 Desires prompting economic activity,
 7-12
 physical necessities and comforts, 8
 power, 9-10
 recognition of others, 10

- Desires, *continued*
 self-expression and development, 8-9
 welfare of others, 10-11
- Desires, sometimes anti-social, 12
- Devaluation of the dollar, 258
- Dewey, John, on instincts in human behavior, 11
- Dewing, A. S., on desire for power, 9-10
- Dictatorship,
 in Germany, 929
 in Italy, 929
 in Russia, 927
- Differential principle in rent theory, 557, 567-569
- Differential productivity of land, causes, 555-556
- Diminishing productivity, law of, applied to labor, 506-507
 law of, applied to loanable funds, 534
 law of, applied to land, 557-558
- Diminishing returns principle in rent theory, 557-558, 569
 and increasing costs, 561
- Diminishing utility, law of, 463-464, 644-645
- Discount vs. interest on bank loans, 304-305
- Distribution of goods, waste in, 910
- Distribution of income, 173-174
 problem under socialism, 924-925
- Distribution of income and wealth, in relation to business cycles, 628-629
- Distribution of wealth, 174
 inequality of, 911-912
 inheritance tax and redistribution, 742
- Distribution, theory of, 496-498
- Division of labor, 39-42
 advantages, 40-41
 human limitations, 41-42
 market limitations, 42
- Domestic system of manufacturing, 60-61
- Douglas, Paul H., on real wages in United States, 499-500
- Due process of law, and labor legislation, 871-872
- Dumping in world trade, 801-802
- Duplex Printing Press Company v. Deering, 196-198
- Economic interpretation of history, 916
- Economics, defined, 4
- Economics, foundations of, 3-4
- Economics of abundance versus scarcity, 12-13
- Ely, Richard T.,
 on definition of property, 899
 on nature of production, 33
 on ripening costs of land, 572
- Employee representation, 220-224
- Employers' liability,
 assumption of risk doctrine and, 885
 common law, 884
 common-law defenses of employer, 884-885
 contributory negligence of employee, 884
 duties of employer under, 884
 fellow servant doctrine under, 884-885
 Priestley v. Fowler, 885
- Engel's law, applied to conditions in United States, 647-649
- Engels, Friedrich,
 and *Communist Manifesto*, 915-916
 associate of Karl Marx, 915
- Entrepreneur as a factor in production, 49-51
- Entrepreneurs, assumption of business risks, 410-412
- Equation of exchange,
 formula, 605
 meaning and explanation of, 604-606
- Esch-Cummins Act of 1920, 390
- Exports, necessity of to pay foreign debts, 767-771
- Fabian socialists, 917-918
- Factors in production, 36-51
- Factory system, 69-70
- Farm crops,
 and business cycles, 625
 and economic recovery, 623
- Fascism,
 in Germany, 929, 930
 in Italy, 929, 930-931
 plan of, 929-932
- Fatigue in industry,
 domination of machine, 875-876
 noise of machinery, 876
 overtime, 874
 results, 876-877

- Fatigue in industry, *continued*
 sources of, 873-876
 speed and monotony of work, 874-875
- Favoritism, public and private, basis of capitalistic combinations, 125-127
- Features of modern industrialism, 65-81
- Federal Advisory Council, 324, 343
- Federal Deposit Insurance Corporation, 346-348
- Federal income tax law of 1934 as revised in 1935, provisions of, 731-735
- Federal reserve banking system,
 Board of Governors, 323-324, 344-345
 clearings, conducting of, 340-343
 commercial paper, rediscounting of, 330-333
 custodianship of central reserves, 329-330
 Federal Advisory Council, 324, 343
 federal reserve banks, and districts, 324-327
 federal reserve bank-note issue, 339-340
 federal reserve note issue, 336-339
 fiscal agent and depository of government, 343
 member banks, 327-329
 open-market operations, 333-335
 origin, 322-323
 service of, 345-346
- Federal reserve bank-notes,
 nature, 271, 339
 security, 273
 use made, 339-340
- Federal reserve banks,
 board of directors, how constituted, 326-327
 capital stock, 326
 functions, 329-343
 location, 324-326
- Federal reserve notes,
 elasticity, 338-339
 nature, 271, 336-337
 security, 273, 337-338
- Federal Trade Commission,
 functions and powers, 830-831
 organization, 830
 "Pittsburgh Plus" case, 832-833
 powers of investigation, 831
- Fed. Trade Comm., *continued*
 prevention of unfair competition, 830-831
- Fees,
 abuses of, 701-702
 advantages of, 701
 as source of revenue, 700-702
 meaning of, 700
- Fetter, Frank A., on time-preference in interest theory, 537-538
- Fiat money,
 means of controlling business cycles, 634-635
 nature, 280-281
- Fiduciary money,
 forms, 267-271
 legal tender qualities, 274-275
 supporting security, 272-274
 uses and abuses, 275-279
 value, 272-275
- Financial statements, 101-106
- Fiscal monopolies, 699-700
- Fisher, Irving,
 formula of equation of exchange, 605
 on compensated dollar, 635-636
 on impatience in interest theory, 538
 on rising prices and value of savings, 602-603
- Five Year Plan in Russia, 929
- Ford, Henry, on effects of introduction of machinery, 169-170
- Foreign exchange,
 bankers' bills, use of, 364-366
 buying and selling, 363-367
 cost of shipping gold, 368-369
 credit conditions, effects on, 369-371
 determination of rate, 367-374
 documentary trade bills, use of, 366-367
 gold points, 368-369
 letters of credit, use of, 364-366
 means of payment, 363-367
 pars of foreign exchange, 367-368
 purchasing power parity, 373-374
 rates of exchange on gold basis, 367-372
 rates of exchange on paper money basis, 372-374
 stabilization, 374
- Foreign trade, and payment of foreign debts, 767-771
- Forests, appropriation of in United States, 21-22

- Forests, *continued*
 conservation of, 695
 Frankfurter, Felix, and Goldmark,
 Josephine, on speed and monotony
 of work, 874
 Free competition, 73-75
 Free enterprise and free contract,
 rights of, 904-905
 Freedom of enterprise, 73-75
 limitations, 74
 Functions in production, 51-53
 Funding agreements with Allies for
 debt payment, 767

 Gainfully employed workers, number
 of, 17
 George, Henry, on the single-tax, 575-
 576
 Germany, fascism in, 929, 930
 Germany and problem of reparations
 payment, 771-777
 Gide, Charles, on natural rights theory
 of property, 902
 Glass-Steagall Act of 1932, 338
 Gold certificates, 269-270
 security, 273
 Gold points, 368-369, 371
 Gold production and price changes,
 609-610
 Gold production and total gold supply,
 264
 Gold Reserve Act of 1934, 272
 Gold standard,
 gold bullion standard, 262-263
 gold exchange standard, 263
 gold specie standard, 262
 meaning, 262-263
 Gold Standard Act of 1900, 272
 Goldmark, Josephine, on rhythm of
 work, 875
 Goods,
 free and economic, 29-31
 nature of, 29
 Government control of capitalism, 906-
 907
 Government monopolies, 697
 Government ownership,
 as source of public revenue, 692-700
 of public utilities, 698-699
 Government ownership and operation
 of public utilities,
 argument for, 867-868
 case against, 868-869

 Government ownership, *continued*
 in Canada, 866-867
 in Europe, 866
 in United States, 865-866
 Greenbacks (*see* United States notes)
 Gresham's law, 277
 Gross earnings tax, 720
 Group action, prevalence of, 81
 Guild socialism, 918
 Guild system, 58-60
 merchant guilds, 58-59
 craft guilds, 59-60

 Handicraft economy, 58-61
 guild system, 58-60
 domestic system, 60-61
 Hansen, Alvin H., on credit expansion
 and contraction theory of business
 cycles, 629-631
 Health insurance, 405-406
 Hedging, 437-439
 Hicks, J. R., on marginal productivity
 theory of wages, 509-510
 Highway transportation, 379
 Hitchman Coal and Coke Company
 case, 186-187
 Hobson, John A., on oversaving theory
 of business cycles, 628
 Holding companies, device to effect
 combinations, 131-133
 Homestead Law, 694
 Hours of labor, in manufacturing in
 the United States, 167
 shortened to relieve unemployment,
 168
 Hours of labor, labor-union policy of
 controlling, benefits of shorter
 working day, 164
 economic possibility, 164-166
 need of controlling, 163-164
 Hours of work, legislation concerning,
 eight-hour movement, 878-881
 fatigue as basis, 873-877
 need of leisure, as basis, 877
 scope and extent, 878-881
 spreading work, as basis, 877-878
 Hoyt, E. E., on percentage of national
 income spent for various classes of
 goods, 650

 Immigration, risks in uncontrolled,
 243-244
 Immigration control, consequences, 250

- Immigration control by:
 - exclusion, 244-246
 - restriction, 247-250
 - selection, 246-247
- Immigration problem in United States,
 - factors creating,
 - changing type of immigrant, 240-241
 - increase in illiteracy, 242
 - urban segregation, 241-242
 - volume of immigration, 238-239
- Income and levels of living, 660-663
- Income taxes,
 - corporation, 735
 - federal income tax law of 1934 as revised in 1935, 731-735
 - history of in U. S., 729-731
 - merits of, 736-737
 - State, 735-736
- Index numbers,
 - aggregative type, 597-598
 - arithmetic average type, 595-597
 - construction of, 594-597
 - meaning of, 594
 - use in measuring price changes, 594-600
- Industrial conflict, prevention, 215-229
- Industrial conflict and the public, 187-188
- Industrial economy, 61-65
 - economic changes, 62-64
 - political changes, 64-65
- Industrial revolution, 67-68
- Industrial unions vs. craft-unions, 140-141
- Industrial Workers of the World, 148-150.
 - relation to syndicalism, 933
- Industrialism, evolution of, 55-65
 - nature of, 65-81
- Infant industries, need of protection, 795-797
- Inflation, result of government borrowing, 757-758
- Inflation of currency, effect on price levels, 610
- Inflation of fiduciary money,
 - consequences, 279
 - in Europe, 277-279
 - in United States, 276-277
 - origin, 275-276
- Informal agreements, device to effect combinations, 134-135
- Inheritance, institution of, 903-904
- Inheritance taxes,
 - federal estate tax, 738-739
 - means of redistributing wealth, 742
 - merits of, 740-743
 - State, 739-740
- Injunctions,
 - defined, 184
 - use, 185-186
- Instalment buying and selling, 673-674
- Institutional determinants of price, 459-460, 501-502, 518-519, 528, 554
- Institutions, relativity of economic, 54
- Institutions of capitalism,
 - free enterprise and free contract, 904-905
 - inheritance, 903-904
 - private property, 899-903
- Insurance,
 - accident, 403-405
 - American Experience Table of Mortality, 398
 - as investment, 687-688
 - life, 398-403
 - nature of, 397-398
 - old age, 406-409
 - property, 409-410
 - scientific basis, 397-398
 - sickness, 405-406
 - social, 403
 - unemployment, 420-424
- Insurance of bank deposits, 346-348
- Interdependence, the result of productive specialization, 78
- Interest,
 - contract, 545-549
 - disrepute of, former, 526-527
 - equilibrium, 547-549
 - gross, 525
 - imputed, 525, 550-551
 - loan, 525, 550-551
 - meaning, 525
 - net, 525
 - pervasiveness of interest problem, 524-525
 - problem, 528-529
 - theory, eclectic, 549-550
- Interest rate contract,
 - limits of loan interest, 546-547
 - price effecting equilibrium between demand and supply, 547-549
- International balance of payments,
 - analyzed, 357-362
 - of the United States for 1934, 358-362

- International trade,
 advantages, 352-357
 agricultural products, relative im-
 portance in trade of United States,
 352
 basis, 352-357
 comparative costs, principle of, 353-
 357
 exports and imports of merchandise
 of United States, 351
 international balance of payments,
 357-362
 reciprocal nature, 350
 significance to United States, 349-352
- Interstate Commerce Commission,
 creation, 847
 organization, 854
 powers, 854-857
- Investigation, compulsory, 206-208
- Investment credit, meaning, 295-296
- Investments of savings,
 building and loan association pay-
 ments, 686-687
 corporation securities, 685-686
 deposits in banks, 685
 insurance, 687-688
 real estate mortgages, 685-686
- Italy, fascism in, 929, 930-931
- Jevons, W. S., on sun-spot theory of
 business cycles, 625
- Jones, Eliot, on over-capitalization of
 United States Steel Corporation,
 115
- Kansas Industrial Relations Court, and
 compulsory arbitration, 212-214
- King, W. I.,
 on rising prices and value of savings,
 602
 on quantity of active capital in
 United States, 71
- Knight case ("sugar trust"), 820-821
- Labor as a factor in production,
 38-42
 human effort not always productive
 labor, 38-39
 technical division of labor, 39-42
- Labor legislation,
 child labor, 891-894
- Labor legislation, *continued*
 employers' liability, 883-885
 forms, 873-898
 hours of labor, 873-881
 legal difficulties in procuring protec-
 tive, 871-873
 minimum wage, 894-898
 philosophy of, 870-871
 safety and health, 881-883
 workmen's compensation, 886-891
- Labor markets, 439-440
 functioning of, in determination of
 wages, 500-503, 515
- Labor organizations,
 federation, 142-143
 incorporation, 141-142
 types, 140-141
- Labor theory of property, 901-902
- Labor-union policies, 153-170
- La Follette Valuation Act of 1913,
 390
- Laissez faire* policy,
 free competition in, 786-787
 individual liberty in, 785-786
 natural rights in, 785
 principles of, 785-787
 reaction against, 788-790
 self-interest in, 786
 strong hold of, in United States, 787-
 788
- Land, appropriation of in United
 States, 20-21
- Land value, capitalization of economic
 rent and, 570-572
- Large-scale business and capitalistic
 combinations, 124-125
- Lausanne agreement and reparations,
 776-777
- Lawlor v. Loewe case, 194-195
- Legal tender qualities of money, 274-
 275
- Lenin, Nicolai, 927, 928
- Life insurance,
 assessment, 402-403
 endowment policy, 400-401
 level premium plan, 403
 limited payment policy, 399
 natural premium plan, 402-403
 ordinary life policy, 399-400
 participating policies, 401-402
 policy, nature of, 399
 reserves in old line, 403
 term policy, 399

- Literacy test in immigration control, 246-247
- Loans and discounts, making bank, 312-317
- Lockouts,
contrasted with strikes, 182-183
legal status, 199
- Luxuries,
conspicuous consumption, 664
justification of, 666-667
nature of, 664-665
- MacDonald, Ramsay, on distribution of wealth, 911-912
- Machine industry, 66-69
based on modern science, 68
transition from tools to machines, 67-68
science, 68
superior productivity, 68-69
- Malthusian theory of population, 233-236
- Margin of consumption, 468
- Marginal buyers and sellers, 473
- Marginal costs in relation to normal price, 488-489, 491-493
- Marginal land,
extensive margin, 558-560, 562-564
intensive margin, 560-564
- Marginal productivity, principle of,
applied in interest theory, 534-535
applied in wage theory, 507-509, 519-523
limitations in interest theory, 535
limitations in wage theory, 510-512
- Marginal time-preference, in interest theory, 540-541, 549-550
- Marginal utility,
analysis applied to separate qualities, 468-469
determinant of demand, 462-469
differentiated from total utility, 464-465, 467
law of diminishing utility in relation to, 463-464
meaning of, 464-467
not identical with subjective price-offer, 467-468
subjective price determined by, 464-469
- Margins,
not exclusive price determinants, 474
- Margins, *continued*
use of in economic analysis, 473-474, 547
- Market price, determined in case of,
one buyer, one seller, 477
several buyers, one seller, 477-481
one buyer, several sellers, 481
several buyers, several sellers, 481-486
- Marketing,
assembling, 430
coöperative, 432-433
financing, 431-432
functions of, 429-433
nature of, 429
organization, 432-433
risk-taking in, 431-432
selling, 429-430
standardization, 430-431
storage, 431
transportation, 431
- Markets,
capital, 442
commodity, 433-439
importance of, 428-429
indispensable to a system of specialized production, 426
labor, 439-440
markets vs. market-place, 427-428
money, 442
nature of, 427-428
origin of, 425-426
real estate, 440-441
security, 442-449
- Marshall, Alfred, on interdependence of demand and supply, 474-476
- Marx, Karl,
and *Capital*, 915
and *Communist Manifesto*, 915, 916
and Marxian socialism, 915-917
- Marxian socialism, 915-917
in Russia, 927-929
- Median, meaning of and use, 597
- Mediation, 202-204
- Medium of exchange function of money, 265-266
- Member banks, of the federal reserve system,
deposits, 328
functions, 328-329
kinds, 327-328
loans and investments, 328
number, 328

- Mercantilism,
 important doctrines of, 782-784
 reaction against, 784-785
- Mergers, device to effect combinations,
 133-134
- Mexico, government ownership of sub-
 surface wealth, 697
- Mill, John Stuart,
 on gross profits, 585
 on natural value, 487
 on productive labour, 34
 on value, 453
- Mineral lands, exploitation of, 695-
 696
- Minerals, appropriation of in United
 States, 22
- Minimum wage legislation,
 extent of, 894-895
 National Recovery Administration
 and, 895
 objections to, 897
 results of, 897-898
 theory underlying, 895-896
- Mitchell, Wesley Clair, on profits-
 margin theory of business cycles,
 631-633
- Mode, meaning and use of, 597
- Money,
 bimetallic standard, 281-293
 brassage, 259
 coinage, a government monopoly,
 257-258
 commodity theory of, 608
 engraving and printing, 260-261
 fiat, 280-281
 fiduciary, 267-279
 limited or unlimited coinage, 259
 quantity theory of, 606-613
 seigniorage, 259-260
 standard, 261-267
 superiority of precious metals, 254-
 257
 unit of value defined, 258
 value of, 593
 variation in purchasing power, 593-
 594
- Money and capital markets, 442
 functioning of, in determination of
 interest, 527-529
- Money in circulation in United States,
 271-272
- Monopoly,
 and price determination, 459
- Monopoly, *continued*
 and wage determination, 502
 development of under capitalism,
 911
 governmental, 697
- Moore, Henry L., on rainfall cycles and
 business cycles, 625
- Moulton, H. G., on aggregate savings
 of American people, 684
- Moulton, Leven, and Warburton, on
 relation between savings and in-
 come, 536-537
- Municipal ownership of public utilities,
 698-699
- Munn v. Illinois, 842
- Mussolini, Benito, 929, 930, 931
- National debt,
 of leading nations before and after
 World War, 751-752
 of United States prior to World War,
 750
- National Industrial Recovery Act,
 and collective bargaining, 157
 and yellow-dog contracts, 187
 declared unconstitutional, 157-158
 restraint of trade, and, 833-834
 section 7a, 157
- National Labor Relations Act, provi-
 sions, 158, 210
- National Transportation Committee,
 recommendations concerning rail-
 ways, 393-394
- Nationalism and fascism, 930
- Natural monopolies,
 basis of combinations, 122-124
 types, 122-123
- Natural resources, wastage of, 694-696
- Natural rights theory of property, 902
- Nature as a factor in production, 42-
 44
- New York Stock Exchange,
 control over, 448-449
 dealing on margin, 446
 described, 443-444
 functions, 444-446
 investment transactions, 444-445
 selling short, 445-446
 speculative transactions, 445-446
- Normal price,
 affected by fixed and variable costs,
 489-490

- Normal price, *continued*
 contrasted with market price, 486-487
 controlled by demand, 493-495
 controlled by supply, 487-493
 in industries of constant cost, 491
 in industries of decreasing cost, 490
 in industries of increasing cost, 490-491
 marginal costs in relation to, 488-489, 491-493
 Northern Securities Company case, 821-822
 Note issues,
 of national banks, 318-320
 of state banks, 318-319
 Nystrom, Paul H., on estimates of income expenditure, 650
- Oil production,
 unit system of, 696
 waste in, 695-696
 Old age insurance, 406-409
 Old age pensions, 406-409
 Open market operations,
 and credit control, 637
 Federal Open Market Committee, 334
 nature of, 333-334
 paper eligible for, 334
 purpose, 334-335
 relation to rediscounting, 334-335
 Operating statements, 106-108
 Over- and under-capitalization, 112-118
 Overinvestment, as explanation of business cycles, 628-629
 Overproduction,
 as explanation of business cycles, 626-628
 general, 626
 Oversaving, as explanation of business cycles, 628-629
 Owen, Robert, Utopian socialist, 914, 915
- Pars of foreign exchange, 367-368
 Partnership, 84-87
 advantages, 85
 disadvantages, 85-87
 nature, 84-85
- Phillips, C. A., on credit expansion of banks, 315-317
 Picketing,
 legal restraint of, 193-194
 persuasive vs. coercive, 178-179
 Pipe-line transportation, 379-380
 "Pittsburgh plus" case, before Federal Trade Commission, 832-833
 Planned economy, and business cycle, 638-639
 Planning, economic, in Russia, 929
 Policies of government toward economic life,
 control, 790-791
 laissez faire, 785-790
 mercantilism, 781-785
 Pools, 127-130
 Population,
 checks, 234
 differential birthrate, 231-232
 emigration, 237-238
 immigration to United States, 238-242
 Malthusian doctrine, 233-234
 Malthusian doctrine appraised, 234-236
 optimum, 236-237
 pressure, 232, 236
 qualitative problems, 230-232
 quantitative problems, 232-238
 Price,
 adjusted at, not by, the margin, 474
 affected by cost of production, 472-474
 affected by marginal utility, 462-469
 competitively determined, 481-486
 equilibrium, 483-486
 institutional determinants, 457-460
 market, 475-486 (See also market price)
 meaning of, 455-456
 monopoly, 480-481
 normal, 486-487
 subjective, 457
 Price changes, effect of, on,
 fixed incomes, 601
 long-time contracts, 603
 rates fixed by government, 603-604
 value of savings, 601-603
 Price changes, general,
 causes of, 606-613
 chart on, 600

- Price changes, *continued*
 evils in rapid changes, 600-604
 meaning of, 593-594
 measurement of by index numbers, 594-600
- Price maintenance, in combinations, 136-137
- Prices,
 importance in period of crisis, 621
 inflation of through government borrowings, 757-758
 realignment during depression, 622
 rising during prosperity, 619
- Private property,
 institution of, 899-903
 nature of, 899-900
 origin of, 900-901
 overemphasis of, 911-912
 social utility of, 901-903
 theories of, 901-903
 under early communism, 925-926
 under Russian communism, 928
 under socialism, 913, 921
- Producers' influence upon consumption, 653-655
- Production,
 as the rendition of personal services, 33-35
 balanced, 618-619
 defined, 28
 forms of, 31-35
 maintenance of under socialism, 922-923
 of material goods, 31-33
 planlessness of, 910
 speculative, 79
- Production, control of, affecting business cycles, 638-639
- Production, unbalanced, and business cycles, 626-628
- Production loans, 532-535
- Productive vs. acquisitive activities, 35-36
- Productivity,
 in relation to interest, 532-535
 in relation to rent, 556-564
 in relation to wages, 504-512
 law of diminishing productivity applied to capital, 534
 law of diminishing productivity applied to labor, 506-507
 law of diminishing productivity applied to land, 557-558
- Productivity, *continued*
 marginal productivity and interest, 534-535
 marginal productivity and wages, 507-512
 value productivity of capital, 533-534
 value productivity of labor, 505-506
- Profit-making, prospects of, as explanation of business cycles, 631-633
- Profit-sharing, 225-228
- Profits,
 anticipated in effecting capitalistic combinations, 137-138
 chance gains and, 588-589
 differential gains and, 588
 differentiated from imputed interest and rent, 583-584
 differentiated from wages of management, 582-583
 functional reward of entrepreneurs, 579-580
 gains from changes in price level, 589
 gains from monopoly, 589-590
 gross, 585
 kinds, 580-585
 necessary, 591-592
 permanence of pure, 590-591
 pure, 584-585
 relation to other distributive shares, 586-587
 risk-taking and, 579-580
 sources of, 587-590
 surplus, 592
 taxation of, 592
- Property, private (*see* Private property)
- Property rights, in natural resources, 23-24
- Property taxes, 713-718
- Prosperity, phase of business cycle, 618-620
- Protectionism, argument for,
 dumping, protection against, 801-802
 home market, 798-799
 industrial independence, 797-798
 infant industries, protection of, 795-797
 labor, protection of against low wage scales, 799-801
 nationalism, development of, 794-795

- Protectionism, *continued*
 summary, 802-803
- Public authority,
 and interest determination, 529
 and price determination, 459
 and wage determination, 502
 capitalism and, 906-907
- Public debts,
 cancellation of, 764-777
 due to public works, 753-754
 due to war, 754-756
 economic effects of, 756-759
 justification of, 753-756
 means of paying, 759-762
 payment of, 762-763
 repudiation of, 763-764
 size of, 750-753
- Public domain,
 disposal of, 693-694
 revenue from, 694
- Public revenue, sources of,
 fees, 700-702
 ownership and operation of monopolies and industries, 697-700
 public domain, 692-697
 special assessments, 702-703
 taxes, 704
- Public utilities,
 basis of regulation, 839-842
 governmental aid, 840-842
 governmental ownership and operation, 698-699, 865-869
 monopolistic character of, 839-840
 provisions of Public Utility Act of 1935, 864
 purpose in regulation of, 842-843, 862
 regulation of, other than railways, 860-864
- Public Utility Act of 1935, status of holding companies under, 864
- Public works,
 and economic recovery, 624
 and public debts, 753-754
- Pullman, Incorporated, balance sheet illustrated, 103-105
- Purchasing power of the dollar, table showing, 598-599
- Purchasing power parity, 373-374
- Quantity theory of money,
 assumptions of, 607-609
 criticism of, 609-613
- Quantity theory, *continued*
 statement of, 606-607
- Quota principle in immigration control, 247-249
- Railway business,
 decreasing costs in, 382
 distinctive economic characteristics, 381-383
 importance in exchange, 375, 381
 importance of fixed capital, 382
 importance in United States, 376-377
 joint costs, 382-383
 natural monopoly, 383
 plight of railways in United States, 391-394
- Railway expenses,
 constant, 384-385
 fixed, 384-385
 operating, 384-385
 variable, 384-385
- Railway Labor Disputes Act of 1934, procedure under, 208-209
- Railway rates,
 charging what the traffic will bear, 385-387
 cost of service, 388-389
 Esch-Cummins Act, 390
 general level of rates, 389-391
 Valuation Act of 1913, 390
 value of service, 386-387
- Railway regulation in United States—
 —legislation,
 Adamson-La Follette Act (1913), 848-849
 Clayton Act (1914), 850
 Elkins Act (1903), 847
 Emergency Transportation Act of 1933, 852-853
 Esch-Cummins Act (1920), 850-852
 Hepburn Act (1906), 848
 Interstate Commerce Act (1887), 847
 Mann-Elkins Act (1910), 848
- Railway regulation in United States—
 powers of Interstate Commerce Commission (*see* Interstate Commerce Commission)
- Railway regulation in United States—
 powers of State public utility commissions, 858-860
- Railway revenues,
 non-operating income, 383-384

- Railway revenues, *continued*
operating revenues, 383-384
- Railway valuation in United States, 114-115, 390, 849-850
- Railways, physical valuation in United States, 114-115, 390, 849-850
- Railways in United States, complaints against,
discrimination between commodities, 846
discrimination between individuals, 844-845
discrimination between places, 844
governmental aid received, 841
high rates, 843-844
long and short haul abuse, 844
"midnight tariffs," 845-846
passes, 846
pooling of earnings or traffic, 846
rebating, 844-846
- Real estate market, 440-441
functioning of, in determination of contract rents, 553-554
- Recapture of railway earnings,
declared valid, 851
provision of Esch-Cummins Act, 851
repealed, 852-853
- Recession, phase of business cycle, 620-621
- Reconstruction Finance Corporation, 542-543
- Recovery, factors affecting,
development of new industries, 623-624
government action, 624
need of replacements, 623
public works, 624
unforeseen events, 623
- Recovery, phase of business cycle, 622-624
- Rediscount rate, and credit control, 636-637
- Rediscounting,
commercial paper eligible for, 330-332
contrasted with advances, 332
proceeds, how taken, 333
rates, how fixed, 332-333
supplemented by open-market operations, 333-335
- Rent,
and interest, payments for durable goods, 552
- Rent, *continued*
bargain, 566-570
capitalization of economic, 570-572
contract land, 553
economic rent of land, 553, 558-564
land, 552-553
margins of use and, 556-564
measurement of, 556-564
nature of, 552-553
popular use of term, 552
present worth of anticipated, 570-572
Ricardian theory of, 556-570
single-tax and, 574-578
taxation, its effects upon, 572-578
unearned increment and, 573-574
value of land dependent upon, 570-572
- Rent bargain, in:
agricultural land, 566-567
urban land, 567-570
- Reparations,
amount of, 771, 774, 776
Dawes Plan, 772-774
Lausanne agreement, 776-777
Reparations Commission, 771
Young Plan, 774-776
- Reparations Commission and reparations, 771
- Representative firm, 493
- Reserves of banks,
custodianship of legal reserves of member banks, 329-330
how built up, 330
required for federal reserve banks, 330
required for member banks, 329-330
significance, 329
- Restraint of trade, doctrine of,
Clayton Anti-trust Act, 825-830
common-law origin, 817
Federal Trade Commission Act, 830-833
in relation to industrial conflict, 190
National Industrial Recovery Act, 833-834
Sherman Anti-trust Act, 818-825, 836-838
- Restriction of output, 161-163
forms, 161-162
lump-of-work argument for, 162
objections to, 162

- Restriction, *continued*
 protecting health of worker argu-
 ment for, 162-163
 Ripening costs of land, 572
 Risks,
 incidence of, 396-397
 of business, 410-412
 of person, 398-409
 of property, 409-410
 of unemployment, 412-424
 universality of, 395-396
 Roundabout production, 47-48
 Ross, Edward A.,
 on economic struggle, 15
 on "race suicide," 231
 Russia,
 Bolshevism in, 927-929
 communism in, 927-929

 Sabotage, 181-182
 Safety and health legislation,
 forms, 882-883
 need of, 881-883
 St. Louis and O'Fallon Railway, deci-
 sion of Supreme Court, 850
 Sales taxes, 727-728
 Saving,
 as accumulation, 682-683
 as conservation, 681-682
 consumption in relation to, 680-681
 corporate, 541-542
 essential to progress, 679-680
 forms, 681-683
 individual, 536-541, 679-680
 in relation to business cycles, 628-
 629
 investment of, 684-688
 social, 680
 sources of, 683
 Savings-deposits, banking, 685
 Savings, value of, affected by price
 changes, 601-603
 Scarcity, limiting factor in want grati-
 fication, 12-13
 Scarcity, universality of struggle due to,
 14
 Schechter Poultry Corporation case,
 157-158
 Scientific management, 219-220
 Secular trend, in business, 617
 Securities Act of 1933 (amended 1934),
 control provisions, 446-448
 Securities Exchange Act of 1934, con-
 trol provisions, 448-449
 Security markets, 442-449
 Security supporting fiduciary money,
 272-273
 Seigniorage, 259-260
 Self-sufficing household economy, 55-58
 stage of direct appropriation, 55-56
 pastoral stage, 56
 agricultural stage, 56-58
 Seligman, E. R. A., on development of
 primitive agriculture, 56-57
 Seller's monopoly, 477-481
 Selling short, 435-437, 445-446
 Serial bond method of providing for
 debt payment, 760-761
 Shakespeare on interest, 526-527
 Sherman Anti-trust Act,
 Knight case, 820-821
 Northern Securities Company case,
 821-822
 prosecutions under, 820
 provisions of, 819-820, 836-838
 quoted in full, 836-838
 Standard Oil Company case, 822-824
 United States Steel Corporation case,
 824-825
 Sherman Silver Purchase Act of 1890,
 270-271, 290
 Shifting and incidence of taxes, 743-749
 shifting defined, 743
 incidence defined, 743
 Shifting of war costs, 758-759
 Shreveport rate case, 859
 Silver,
 certificates, 269-270, 273
 coins, 268-269
 price of, 268
 Silver Purchase Act of 1934, 291-292
 Single-tax proposal,
 case for, 576-577
 Henry George and, 574-576
 nature of, 574
 objections to, 577-578
 Sinking fund method of providing for
 debt payment, 760
 Smith, Adam,
 on advantages of division of labour,
 39-40
 on canons of taxation, 706, 707
 on unproductive labour, 33
 Smyth v. Ames, 112
 Social insurance, 403

- Social Security Act of 1935,
 - how financed, 408, 423
 - old age pensions, contributory, 407-409
 - old age pensions, free, 407
 - unemployment insurance, 423
- Socialism,
 - and anarchism, 933
 - and communism, 925-926
 - socialistic state, 913-914
 - strength of, 919-920
 - ways of establishing, 918-919
 - history and theory of, 914-918
 - nature of, 913
 - objections to, 920-925
 - practical difficulties involved in, 920-925
- Socialism, objections to,
 - bureaucracy, 923-924
 - difficulty in distribution of income, 924-925
 - ill-founded, 920-922
 - difficulty in maintaining wealth production, 922-923
- Sole proprietorship, 83-84
 - advantages, 83
 - disadvantages, 84
 - nature of, 83
 - prevalence in United States, 83
- Solvency and liquidity of banks, 320-321
- Special assessments,
 - as source of public revenue, 702-703
 - meaning of, 702
- Specialization in production, 75-78
 - functions within industrial units, 75-77
 - territorial, 77-78
 - trades and crafts, 75
- Specialized production and business cycle, 618-619
- Speculation, in commodity markets, 434-437
- Spending,
 - caveat emptor, 675
 - education of consumer in, 675-676
 - financing consumers, 673-675
 - guidance of consumers in, 677
 - protection of consumers by government, 677-679
- Stabilization of prices and business cycles, 634-638
- Stabilized dollar, 635-636
- Standard money, 261-267
 - defined, 261-262
 - forms, 261-263
 - functions, 265-267
 - value, 263-265
- Standard of deferred payments, function of money, 266
- Standard of living, effect upon wages, 513-514
- Standard of value function of money, 265-266
- Standard Oil Company,
 - holding company, 131-132
 - recipient of railway favors, 126-127
- Standard Oil Company case, 822-824
- Standards or levels of living, 660-663
- State and local debts, 753
- Steward, Ira, and the eight-hour movement, 878-879
- Stock exchanges (*see* New York Stock Exchange)
- Stocks,
 - common stock, 101
 - cumulative vs. non-cumulative preferred stock, 98, 100
 - no-par value stock, 101
 - preferred stock, 98, 100-101
- Stock-watering vs. stock dividends, 116-118
- Store of value, function of money, 266-267
- Strike-breaking, 183-184
 - legal status, 199
- Strikes,
 - classified, 175-176
 - conduct of, 177-178
 - defined, 175
 - effectiveness, 178
 - general, 176
 - legal restraint of, 190-193
 - objects, 176-177
 - sympathetic, 176
- Struggle for a job, 16-20
 - economic power over the job, 18-20
 - fear of losing the job, 17-18
 - large number of job-holders, 16-17
- Struggle for a living, 14-16
 - economic struggle versus struggle for existence, 14-15
- Struggle for capital, 24-27
- Struggle for economic opportunity,
 - forms, 16

- Struggle for natural resources, 20-24
 - appropriation of forests, 21-22
 - appropriation of land, 20-21
 - appropriation of minerals, 22-23
 - appropriation of water-power, 23
- Subjective prices,
 - determined by cost of production, 472-474
 - determined by marginal utility, 464-469
 - interaction of subjective prices in establishing market price, 476-486
 - nature of, 457
 - of labor market, 515-516
 - of loanable funds market, 528, 546-549
 - of real estate market, 553, 566-567
- Sun-spot theory of business cycles, 625
- Supply of agricultural land, 565-566
- Supply of consumers' goods,
 - cost of production and, 472-474
 - determinants of, 471-472
 - market, 470
 - potential, 470
 - schedules and curves, 483-486
 - subjective prices and, 472-475
- Supply of labor,
 - curves, 517-519
 - determinants of, 515
 - distinctive characteristics, 512-513
 - disutility of labor and, 514-515
 - meaning, 512
 - productivity and, 513
 - standard of living and, 513-514
- Supply of loanable funds,
 - advances of government, 542-543
 - bank credit, extensions of, 543-544
 - corporate savings, 541-542
 - curves, 546-549
 - individual savings, 536-541
 - meaning, 535-536
 - time-preference, a limiting factor, 537-541, 549-550
- Supreme Court cases affecting labor,
 - American Steel Foundries Co. v. Tri-City Trades Council, 193-194
 - Duplex Printing Press Company, v. Deering, 196-198
 - Hitchman Coal & Coke Co. v. Mitchell, 186
 - Lawlor v. Loewe (Danbury Hatters), 194-195
 - Truax v. Corrigan, 193-194
- Supreme Court, *continued*
 - United Mine Workers v. Coronado Coal Co., 191-193
 - Wolff Packing Co. v. Court of Industrial Relations, 212-214
- Supreme Court decisions pertaining to combinations in industry,
 - Appalachian Coals, Inc. v. United States, 827-830
 - Northern Securities Company v. United States, 821-822
 - United States v. E. C. Knight Company, 820-821
 - United States v. United States Steel Corporation, 824-825
 - Standard Oil Company of New Jersey v. United States, 822-824
- Syndicalism,
 - and the political state, 932
 - plan of, 932-933
- Tariffs,
 - ad valorem principle in, 793, 806
 - comparative costs principle and, 803-805
 - free trade argument for, 803-805
 - history in United States (*see* Tariff policy of United States)
 - kinds, 794
 - origin of term, 793
 - protectionistic argument for (*see also* protectionism), 794-803
 - specific duty principle, 793
 - use of, to control trade, 792
- Tariff policy of United States,
 - Act of 1816, 806
 - Act of 1828 ("tariff of abominations"), 806-807
 - Dingley Act (1897), 808-809
 - flexibility principle in tariff making, 810-813
 - future American tariff policy, 813-815
 - Fordney-McCumber Act (1922), 810
 - Hawley-Smoot Act (1930), 810
 - McKinley Act (1890), 807
 - Morrill Act (1861), 807
 - Payne-Aldrich Act (1909), 809
 - periods, 805-807
 - Reciprocal Tariff Act of 1934, 811
 - Underwood Act (1914), 809
 - United States Tariff Commission, 811-813

- Tariff policy, *continued*
 Wilson-Gorman Act (1894), 808
- Taussig, F. W., on specialization of trades and crafts, 75
- Taxation,
 justice in, 706-707
 principles in distributing burden of, 709-713
- Taxes,
 as a source of revenue, 704
 business, 718-722
 consumption, 722-727
 criteria of good, 706-709
 defined, 704
 degressive, 711-712, 713
 estate and inheritance, 737-743
 evasion of, 744
 income, 728-737
 progressive, 711, 713
 property, 713-718
 proportional, 711, 713
 regressive, 712, 713
 relative importance of different forms, 743-747
 sales, 727-728
 shifting and incidence, 743-749
- Taylor, Frederick W., on scientific management, 219-220
- Time-preference, in explanation of interest, 537-541, 549-550
- Trade agreement,
 illustrated, 153-154
 means of improving industrial relations, 229
- Trade bills, use in foreign exchange, 366-367
- Transactions of the market, 457, 460, 500-501, 527-529, 553-554
- Transfer problem in paying foreign debts, 761-762
- Transportation, agencies of,
 air transportation, 380-381
 highway transportation, 379
 pipe-line transportation, 379-380
 railway transportation, 376-377
 water transportation, 377-379
- Trotsky, Leon, 927
- Truax v. Corrigan case, 193-194
- Trusts, 130-131
- Unemployment,
 causes, 413-416
 insurance, 420-424
 labor exchanges, 416
 nature of, 412-413
 public works, 417-419
 stabilization of industry, 419-420
 volume, 172, 415
- Unemployment insurance,
 British system, 421-422
 compulsory, 421-423
 nature of, 420
 under Social Security Act, 423
 voluntary, 420-421
 Wisconsin plan, 422-423
- Union of Soviet Socialist Republics, 927-929
- Unionism, historical basis, 139
- United States,
 and war debts, 764-771
 creditor status of, 769-771
 excess of exports over imports, 769
- United States Bureau of Labor Statistics, wholesale price index, 594-595, 598-599
- United States notes ("greenbacks"),
 amount issued, 276
 nature, 270
 security, 273
- United States Steel Corporation,
 capitalization, 115
 stockholders, 89, 91
- United States Steel Corporation case,
 before Federal Trade Commission, 832-833
 under Sherman Act, 824-825
- United States Tariff Commission, 811-813
- Usury, 529
- Utopian socialists, 914-915, 915n
- Valuation of railways in United States, 114-115, 390, 849-850
- Value,
 economic value, 454-455
 exchange value, 455-456
 exchange value and price, 455-456
 kinds, 454
 market, 461-486
 normal, 486-495
 of fiduciary money, 272-275
 of land, 570-572
 of standard money, 263-265

- Van Hise, Charles R., on forest area of United States, 21
- Velocity of circulation of money and credit, 611-612
- Wage bargain,
limits of, 515
price effecting equilibrium between demand and supply, 517-518
- Wages,
economy of high wages, 514
long-time factors affecting, 519-523
money, 498
rates of, 498
real, 498-499
salaries, 498
- Wages of management, 582-583
- Wants, habitual expression, 6
instinctive basis of, 5-6
nature of, 4-7
rationalization of, 6-7
- War and public debts, 751, 754-756
- War debts,
amount of, 764
cancellation of, 765-767
funding of, 767
problems in payment of, 767-771
- Warburton, Clark, on composition and value of the national product in 1929, 651
- Waste, under capitalism, 909-911
- Water transportation, 377-379
- Water-power, appropriation of in United States, 23
- Water-works, government ownership of, 698
- Wealth, social, 30-31, 35
- Weather conditions, and business cycles, 625
- Weld, L. H. D., on assembling in marketing, 430
- Welfare work, 218
- Wholesale prices,
chart showing changes from 1801-1934, 600
index numbers of, 598-599
- Williams, Whiting, on importance of daily job, 17
- Wolff Packing Co. v. Court of Industrial Relations, 212-214
- Woodworth, R. S., on importance of instincts in human behavior, 5
- Workmen's compensation legislation, administration of, 890-891
benefits under, 888-890
insurance of compensation risks, 890
scope of, 887-888
spread of, 886
types of compensation systems, 886-887
- World War, money cost of, 755
- Yellow-dog contracts, 186-187
- Young Plan of reparations payment, 774-776